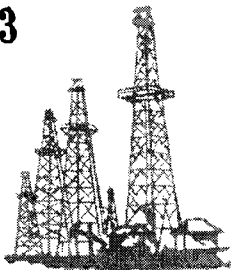


003



*Petroleum and Energy Consultants  
Registered in Rocky Mountain States  
Oil & Gas Production*

**BURKHALTER ENGINEERING, INC.**

751 Horizon Ct., Suite 245  
P.O. Box 60095  
Grand Junction, Co 81506  
Telephone (970) 243-6060  
Fax (970) 243-6015  
Mobile (970) 260-0765

October 4, 2004

Division of Oil, Gas & Mining  
P.O. Box 145801  
Salt Lake City, UT 84114-5801

Re: APD  
State # 2-3  
ML-22208, Grand County, UT

To Whom It May Concern:

Enclosed are three copies of the referenced APD requesting drilling permit for a vertically drilled well in the San Arroyo Field. Your people (Bart Kettle) have already done an onsite of the surface location when we were planning to drill a directional hole. We have changed plans and plan to drill a vertical well, hence the resubmittal of the APD.

Please call if you have questions/need additional information.

Very truly yours,

  
J. N. Burkhalter, PE

RECEIVED

OCT 06 2004

DIV. OF OIL, GAS & MINING

001

**STATE OF UTAH**  
DEPARTMENT OF NATURAL RESOURCES  
DIVISION OF OIL, GAS AND MINING

FORM 3

AMENDED REPORT ☐  
(highlight changes)

**APPLICATION FOR PERMIT TO DRILL**

1A. TYPE OF WORK: DRILL <input checked="" type="checkbox"/> REENTER <input type="checkbox"/> DEEPEN <input type="checkbox"/>		5. MINERAL LEASE NO: ML-22208	6. SURFACE State
B. TYPE OF WELL: OIL <input type="checkbox"/> GAS <input checked="" type="checkbox"/> OTHER _____ SINGLE ZONE <input checked="" type="checkbox"/> MULTIPLE ZONE <input type="checkbox"/>		7. IF INDIAN, ALLOTTEE OR TRIBE NAME _____	
2. NAME OF OPERATOR: Crescendo Energy, LLC		8. UNIT or CA AGREEMENT NAME _____	
3. ADDRESS OF OPERATOR: P.O. Box 1814 CITY Midland STATE TX ZIP 79702		9. WELL NAME and NUMBER: State #2-3	
4. LOCATION OF WELL (FOOTAGES) AT SURFACE: 2536 FNL, 1858 FWL, Sec 2, T16S, R24E, SLM 651548X 39.44489 AT PROPOSED PRODUCING ZONE: Same as Surface 4367419Y -109.23887		10. FIELD AND POOL, OR WILDCAT: San Arroyo East Canyon 195	
14. DISTANCE IN MILES AND DIRECTION FROM NEAREST TOWN OR POST OFFICE: 37 miles northwest of Mack, CO		11. QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN: SE NW 2 16S 24E S	
15. DISTANCE TO NEAREST PROPERTY OR LEASE LINE (FEET) 1858'	16. NUMBER OF ACRES IN LEASE: 640	17. NUMBER OF ACRES ASSIGNED TO THIS WELL 80	
18. DISTANCE TO NEAREST WELL (DRILLING, COMPLETED, OR APPLIED FOR) ON THIS LEASE (FEET) 1900	19. PROPOSED DEPTH: 8,000	20. BOND DESCRIPTION: No 0437483 442156	
21. ELEVATIONS (SHOW WHETHER DF, RT, GR, ETC.): 8375' Grnd	22. APPROXIMATE DATE WORK WILL START: 10/15/2004	23. ESTIMATED DURATION: 4 to 5 weeks	

**PROPOSED CASING AND CEMENTING PROGRAM**

SIZE OF HOLE	CASING SIZE, GRADE, AND WEIGHT PER FOOT	SETTING DEPTH	CEMENT TYPE, QUANTITY, YIELD, AND SLURRY WEIGHT
12 1/4"	8 5/8" J55 24 lb	250	Regular, 120 sx 1.3 cuft/sk 15 lb/gal
8 3/4"	7" J55 23 lb	3,900	Hall. Light, 265 sx 2.73 cuft/sk 11 lb/gal
6 1/2"	4 1/2" J55 11.6 lb	8,000	Thixotropic, 175 sx 1.45 cuft/sk 14 lb/gal

25.

**ATTACHMENTS**

VERIFY THE FOLLOWING ARE ATTACHED IN ACCORDANCE WITH THE UTAH OIL AND GAS CONSERVATION GENERAL RULES:

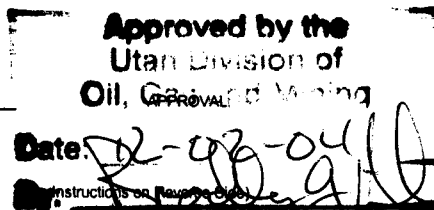
- |  |  |
|--|--|
| <input checked="" type="checkbox"/> WELL PLAT OR MAP PREPARED BY LICENSED SURVEYOR OR ENGINEER     | <input checked="" type="checkbox"/> COMPLETE DRILLING PLAN                                   |
| <input checked="" type="checkbox"/> EVIDENCE OF DIVISION OF WATER RIGHTS APPROVAL FOR USE OF WATER | <input type="checkbox"/> FORM 5, IF OPERATOR IS PERSON OR COMPANY OTHER THAN THE LEASE OWNER |

NAME (PLEASE PRINT) J. N. Burkhalter

TITLE Consulting Engineer/Agent

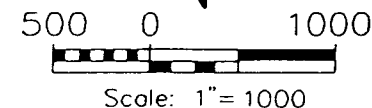
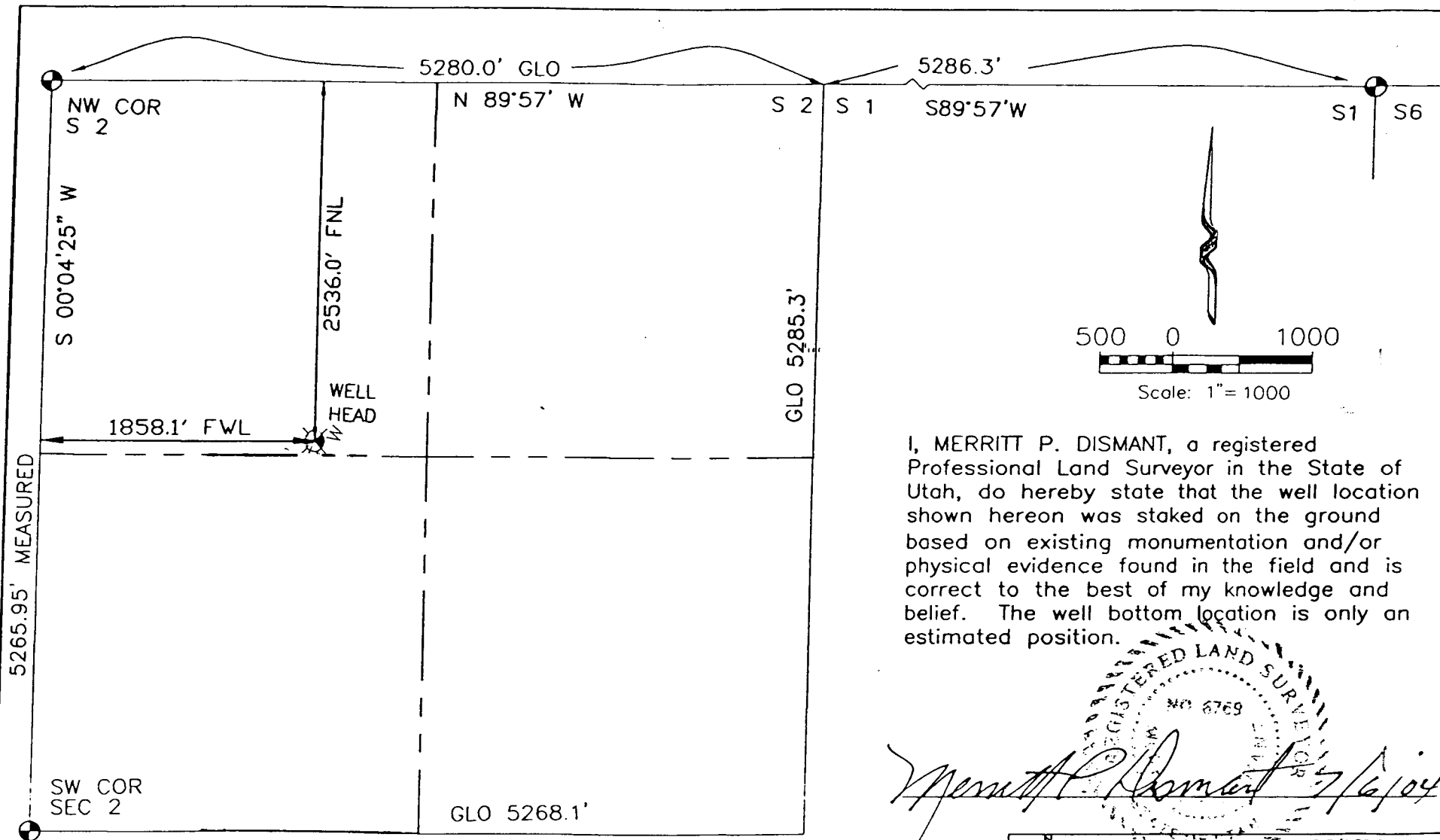
SIGNATURE J. N. BurkhalterDATE 9/30/2004

(This space for State use only)

API NUMBER ASSIGNED: 43-019-31461

**RECEIVED**  
**OCT 06 2004**

DIV. OF OIL, GAS &amp; MINING



I, MERRITT P. DISMANT, a registered Professional Land Surveyor in the State of Utah, do hereby state that the well location shown hereon was staked on the ground based on existing monumentation and/or physical evidence found in the field and is correct to the best of my knowledge and belief. The well bottom location is only an estimated position.

*Merritt P. Dismant* 7/6/04

STATE #2-3  
EXHIBIT 1

#### NOTES:

Elevations are determined from a GPS survey performed in May, 2004, transferring elevation from Mesa County CORS Point MC01.

#### LEGEND

- SECTION LINE
- 1/4 SECTION LINE
- ⊙ GLO BRASS CAP
- ⊙ PROPOSED WELL HEAD LOCATION
- ▲ WELL BOTTOM
- FWL FROM WEST LINE
- FSL FROM SOUTH LINE


 <b>PROFESSIONAL SURVEYING, INC.</b> 2591 B 3/4 ROAD GRAND JUNCTION, CO 81503 PHONE: (970) 257-7146 FAX: (970) 255-7047	
<b>CRESCENDO ENERGY PARTNERS, LLC</b> <b>GAS WELL #61</b> <b>SAN ARROYO UNIT</b> <b>NW 1/4, SECTION 2, T16S, R24E, SLBM,</b> <b>GRAND COUNTY, UTAH</b>	
DATE: 01 July 2004	SCALE: 1" = 1000'
FILE: 2004-1100000000	PROJECT NO: 2004-15
DRAWN: J. GLO 60	SHEET: 1 OF 5

EXHIBIT 1

STATE OF UTAH  
DEPARTMENT OF NATURAL RESOURCES  
DIVISION OF OIL, GAS AND MINING

FORM 5

## DESIGNATION OF AGENT OR OPERATOR

The undersigned is, on record, the holder of oil and gas lease

LEASE NAME: STATE LEASESLEASE NUMBER: Utah Leases ML-4113 & ML-22208

and hereby designates

NAME: J. N. BurkhalterADDRESS: P.O. Box 60095city Grand Junction state CO zip 81506

as his (check one) agent ☒ / operator ☐, with full authority to act in his behalf in complying with the terms of the lease and regulations applicable thereto and on whom the Division Director or Authorized Agent may serve written or oral instructions in securing compliance with the Oil and Gas Conservation General Rules and Procedural Rules of the Board of Oil, Gas and Mining of the State of Utah with respect to:

(Describe acreage to which this designation is applicable. Identify each oil and gas well by API number and name. Attach additional pages as needed.)

ML-4113: All of Sec 16, T16S, R25E, SLM, Grand County

ML-22208: All of Sec2, T16S, R24E, SLM, Grand County

It is understood that this designation of agent/operator does not relieve the lessee of responsibility for compliance with the terms of the lease and the Oil and Gas Conservation General Rules and Procedural Rules of the Board of Oil, Gas and Mining of the State of Utah. It is also understood that this designation of agent or operator does not constitute an assignment of any interest in the lease.

In case of default on the part of the designated agent/operator, the lessee will make full and prompt compliance with all rules, lease terms or orders of the Board of Oil, Gas and Mining of the State of Utah or its authorized representative.

The lessee agrees to promptly notify the Division Director or Authorized Agent of any change in this designation.

Effective Date of Designation: 7/22/04BY: (Name) JAMES J. OSBORNE  
(Signature) James J. Osborne  
(Title) VICE PRESIDENT  
(Phone) (432) 697-7221OF: (Company) CRESCENDO ENERGY, LLC  
(Address) 1031 ANDREWS HIGHWAY, SUITE 211  
city MIDLAND  
state TX zip 79701

(5/2000)

RECEIVED  
OCT 06 2004  
DIV. OF OIL, GAS & MINING

## STATE #2-3

### STATE LEASE

#### 1. DRILLING PLAN

- a. **Name of Well:** State #2-3
- b. **Surface Location of Well:** 2536' FNL, 1858' FWL, Sec 2, T16S, R24E, SLM  
Bottom Hole Location: Same  
Grand County, Utah
- c. **State Lease No.** ML-22208
- d. **Ungraded ground elevation:** 8375' above sea level
- e. **The surface formation:** Cretaceous Mesa Verde
- f. **Drilling Equipment:** Rotary drilling equipment will be used to drill the well to a TD of 8000' TVD and run casing. Standard 9" 3000 lb BOP double ram stack will be employed. A completion rig will be employed to complete the well.
- g. **The Total Depth** of the well is planned to be 8000'± TVD.

h. **Tops of Geologic Markers:**

Surface:	Mesa Verde Formation
Castle Gate	3500' TVD
Dakota	7000' TVD
Morrison	7250' TVD
Total Depth	8000' TVD

i. **Estimated depths of fluid-bearing formations:**

Castle Gate: gas/water 3500' TVD  
Dakota: gas/water 7100' TVD  
Morrison: gas/water 7350' TVD

j. **The primary geologic objective is:**

<sup>7250</sup>  
~~Dakota~~/Morrison: ~~7100~~ to 7350 TVD

per Newt Burkhalter 12/2/04  
DND

k. **Casing:**

Surface: A 12 1/4" surface hole will be drilled to 250' and 8 5/8" 24 lb new J55 csg will be run to 250' and cemented to surface with 120 sx Class "G" (regular) cement containing 2% CaCl, 1/8 lb/sk Floseal, density 15.6 lb/gal, yield 1.18 cuft/sk.

Intermediate: An 8 3/4" hole will be drilled through Castlegate to approximately 3900' depending on geology and 7" 23 lb new J55 csg will be run and

cemented with 265 sx Halliburton Light Cement containing 23.5 lb/sk Class "G" cement, 52.375 lb/sk Poz, 7.64 lb/sk Lime, 6.11 lb/sk Gel, 0.25 lb/sk poly-e-flake. Slurry weight 11.00 lb/gal, yield 2.73 cuft/sk.

Production: A 6 1/2" hole will be drilled to projected depth of 8000'± depending on geology, and 4 1/2" 11.6 lb new J55 csg will be run to TD and cemented with 175 sx thixotropic cement comprised of Class "G" cement, 10 lb/sk Calseal, 0.2 lb/sk Halad 344, 5 lb/sk gilsonite, density 14.2 lb/gal, yield 1.44 cuft/sk to cover all possible porous zones with a minimum of 200' of cement.

l. **Pressure Control:** A standard 9" 3000 lb double ram BOP will be flanged up and tested initially and monthly thereafter to TD. Rams will be operated during trips.

m. **Mud Program:** Fresh gel mud consisting of native clays, fresh water and bentonite will be used for the surface hole. Mud with at least 2% KCl (potassium chloride) will be used for the intermediate and production holes.

n. **Testing, Logging and Coring Programs:**

Testing: If returns indicate the need for a DST, testers will be called.

Mud Logging: A mud logging unit will be employed out from under surface pipe to evaluate any coals above the Castlegate.

Open Hole Logging: Electric and porosity logs will be run in open hole after intermediate casing depth is reached and after TD is reached.

Cased Hole Logging: A Gamma ray correlation and cement bond log will be run prior to perforating in cased hole.

Coring Program: No coring is planned for this well.

o. **No abnormal pressures** or H<sub>2</sub>S is anticipated in this well.

p. **Anticipated spud date** is middle October, 2004. Drilling time will be approximately four weeks from spud to move off of the drilling rig.

2. **BOP TEST PROCEDURES:** Immediately after nipping up the double ram BOP to the surface pipe, professional testers will be called to the location and BOP tested to 3000 psi, both sets of rams, valves and flanges.

### 3. MULTI-POINT SURFACE USE PLAN (13-Point Plan)

a. **The land survey** for the location was performed by KS Professional Surveying, Inc., of Grand junction, Colorado. Cultural resources were cleared by Mike Piontkowski of Uncompahgre Archaeological Consultants, Grand Junction, CO.

b. **(See Map) To reach the location** from Mack, CO, proceed westerly on old Hwy 6 approximately 10.0 miles to San Arroyo Road, turn right (north), stay on main traveled road for approximately 17 miles to San Arroyo plant. Stay on main traveled

road up through switchbacks for approximately 7 miles to radio towers. Proceed westerly (Hay Canyon/PR Spring road) for approximately 5 miles to State #2-3 location.

c. **Access Road:** See Map. The State #2-3 well is a development well. The access road will be a short road about 30 yds long from the existing road and crossing the main pipeline in the area.

d. **Planned Access Road:** The location is just off existing road. A culvert will be required at the turnoff from the existing road, and adequate ramping and protection will be required to protect the existing gas pipeline.

e. **Wells within a one-mile radius of proposed well:**

- 1) There are no known water wells within the one-mile radius.
- 2) There are two (2) known P&A wells within the one-mile radius.  
S ½ SE Sec 35, T15.5S, R24E, SLM  
SW NE SW Sec 35, T15.5S, R24E, SLM
- 3) There are no known salt water disposal wells in the one-mile radius
- 4) There are three (3) known producing wells in the one-mile radius:  
NW NE SE Sec 2, T16S, R24E, SLM  
SE NW NW Sec 2, T16S, R24E, SLM  
SW NE NW Sec 11, T16S, R24E, SLM
- 5) There are no known currently permitted wells in the one-mile radius.
- 6) There are no known monitoring wells in the one-mile radius

f. **Production facilities** such as separators, dehydrators, flow meters and tanks will be located on the disturbed portion of the well pad. If gravel is needed for foundation under tanks or gas processing equipment, it will be hauled in. All other material will be obtained from the site such as dirt for the dikes around tanks.

g. **Above ground structures** will be painted according to State selected colors.

h. **Reserve Pit:** Will be fenced on three sides during drilling. After the drilling rig is moved out, Reserve Pit will be fenced on fourth side and fence maintained for the life of the pit – until final reclamation.

i. **Tanks or Tank Batteries:** A tank or tank battery will be surrounded by an impervious dike of sufficient size and height to contain 110% of the largest tank in the battery.

j. **If any oil/liquid hydrocarbons** resulting from drilling or completion end up in the pit, the pit will be flagged/netted.

k. **Off-Site Facilities:** No off-drill pad facilities are anticipated for the well. Condensate will be stored on the drill pad and gas piped off to the sales pipeline nearby.

**l. Proposed Pipeline Facilities:** The Sales Gas line will be installed to the south, staying on existing Lease and hook up to existing pipeline on existing lease. (See Exhibit 2). After completion and testing, a Sundry Notice will be filed describing the pipeline needed to produce this well.

**m. Location and Type of Water Supply:** Water for mixing drilling mud and cement will be trucked from the Ute Water facility at Mack, CO, approximately 39 miles from the location. Ute water is purified domestic water and will not cause any deleterious affects to the environment.

**n. Source of Construction Materials:** No material will be removed from State owned sources. If gravel is needed for foundation under production facilities, there are several commercial gravel pits in the area. The dike around the tank will be constructed from dirt found on the location.

**o. Methods of handling waste disposal:** Design of pit and its usage. Sewage disposal. Garbage and trash handling.

- A. The reserve pit will be designed to prevent the collection of surface runoff. The pit will be lined with a 12-mil or thicker polyethylene to prevent leakage of fluids. The liner will be rolled in place and recurred at the ends, i.e. buried on the top of the pit berms. Prior to use, the reserve pit will be fenced "stock tight" on three sides, the fourth side will be fenced at the time of rig release and removal, at which time the pit will be flagged. Drilling fluids and cuttings will be constrained in the reserve pit.

Fluids in the reserve pit will be allowed to evaporate prior to being backfilled. Pit will remain fenced until backfilled.

- B. Produced liquid hydrocarbons will be constrained in test tank(s) during completion and testing.
- C. Sewage will be handled in self-contained, chemically treated portable toilets and contents hauled off location to an authorized facility in accordance with State and local regulations.
- D. Garbage and other trash will be contained in an acceptable trash receptacle, which will be enclosed. Refuse will be transported to an approved sanitary landfill upon completion of operations.
- E. Trash will be picked up if scattered and contained in receptacles during drilling/completion/construction operations.

**p. Ancillary Facilities:** None Required.

**q. Well site layout** including plats, cuts, fills, cross sections, parking for vehicles, top soil storage, location of pits including reserve pit, erosion control.

- A. See Survey Plats.
- B. Cut and fill cross sections indicated on survey exhibits. Sufficient material will be available to backfill the reserve pit after drilling and completion activities.
- C. All equipment will be confined to the access road, pad and areas specified in the APD.
- D. Prior to construction, all topsoil will be removed from the entire site and stockpiled as directed by the State during the onsite. Topsoil will be stripped to a depth of 6 to 8 inches where possible.
- E. Soil material and overburden will not be pushed over side slopes or into drainages. All soil material disturbed will be placed in an area where it can be retrieved.
- F. The location (including reserve pit) will be designed to prevent the collection of surface runoff.
- G. Adequate erosion control barriers will be installed at the drill pad to minimize storm water runoff. Water drainage upslope from the drill pad will be addressed at the time of construction to keep it from ponding on the pad.

**r. Surface Reclamation Plans:**

- A. Rat and mouse holes will be backfilled and compacted from bottom to top immediately upon release of the drilling rig from the location.
- B. Backfilling of the pit will be done when the contents have been sufficiently dewatered.
- C. Production Operations:
  - a. If the well is productive, areas not required for operations will be contoured and water barred to support vegetation and reduce erosion. All disturbed areas will be seeded with seed mixture prescribed by the State. Seeding will be done after September 15<sup>th</sup> and/or prior to ground frost or seed will be planted after the last frost and before May 15<sup>th</sup>. Slopes too steep for machinery will be hand broadcast and raked with twice the specified amount of seed.
  - b. Noxious weeds will be controlled on the location in accordance with State guidelines.
  - c. Rehabilitation will begin upon the completion of the well. Complete rehabilitation will depend on weather conditions and the amount of time required to sufficiently dewater the reserve pit.

**s. Abandoned Well Plans:**

- A. In the event of a dry hole, the location will be re-contoured, the top soil will be distributed evenly over the entire location. The seed bed will be prepared by disking to a depth of four(4) to six(6) inches following the contour. Seed will be drilled on the contour to a depth of 0.5 inches, followed by cultipaction to compact the seed bed, preventing soil loss. Certified seed will be used with a minimum germination rate of 80% and minimum purity of 90%.

- B. Water bars, either for a producing well or a dry hole, will be constructed at least one(1) foot deep on the contour with approximately two(2) feet of drop per 100 feet of waterbed to ensure drainage and extend into established vegetation. All water bars will be constructed with berm on the downhill side to prevent erosion from occurring and sitting in the trench.

Water bar spacing on the location will be as follows:

<u>% Slope</u>	<u>Spacing Interval</u>
2 or <	200'
2 to 4	100'
4 or 5	75'
5 or >	50'

- C. Notice of Intent to Abandon and Subsequent Report of Abandonment will be submitted for approval.

**t. Surface Ownership and ROW Ownership:**

Surface Ownership: State of Utah

ROW Ownership: State of Utah

**u. Other:**

- A. Cultural Resource Inventory: A Class III Cultural Resource Inventory has been conducted by Mike Piontkowski of Uncompahgre Archaeological Consultants.

The survey finding was that no cultural resources were found on or near the location.

- B. Surface use of Area: Surface use of area is for grazing livestock, big game hunting and production of oil & gas.
- C. Fire Suppression: Operator will be responsible for the prevention and suppression of fires on public lands caused by its employees, contractors, or subcontractors.
- D. Hazmat: Operator maintains a file, per 29 CFR 1910.1200 (g) containing current Material Safety Data Sheets (MSDS) for all chemicals, compounds and/or substances which are used during the course of construction, drilling, completion and production operations for this project. Hazardous materials (substances) which may be transported across these lands may include drilling mud, cementing products which are primarily inhalation hazards, fuels (flammable and/or combustible), materials that may be necessary for well completion/stimulation activities such as flammable or

Combustible products and acids/gels (corrosives).

The opportunity for Superfund Amendments and Reauthorization ACT (SARA) listed Extremely Hazardous Substances (EHS) at the site is generally limited to proprietary treating chemicals. All hazardous substances, EHS, and commercial preparations will be handled in an appropriate manner to minimize the potential for leaks or spills to the environment.

**u. Operators Representative and Address and a Certification:**

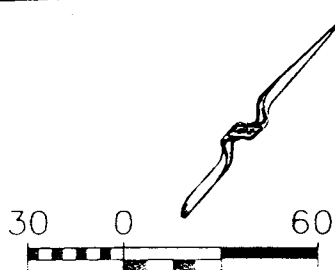
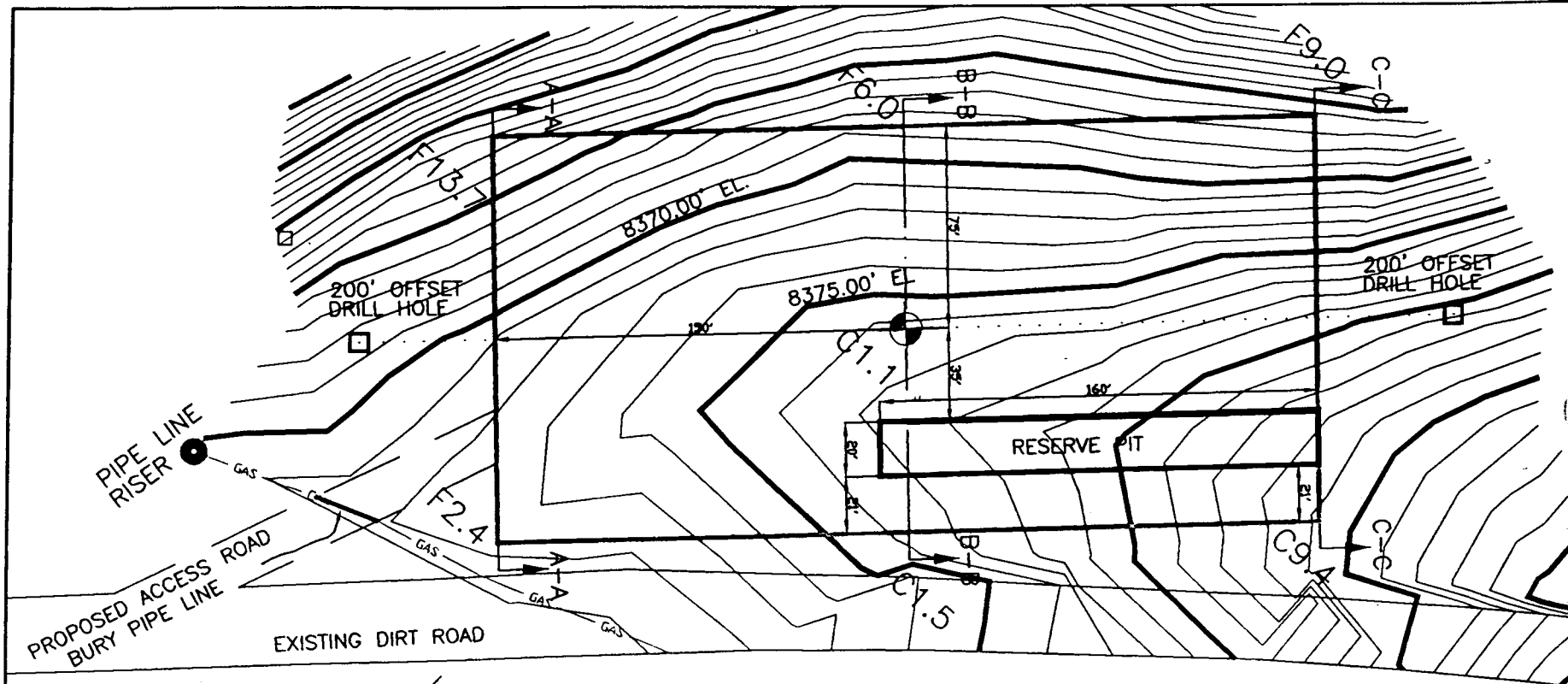
CERTIFICATION: I hereby certify that I, or persons under my direct supervision, have inspected the proposed drill site and access route; that I am familiar with the conditions which currently exist; that the statements made in this plan are, to the best of my knowledge, true and correct; and that the work associated with operations proposed herein will be performed by Crescendo Energy, LLC and its contractors and subcontractors in conformity with this plan and the terms and conditions under which it is approved. This statement is subject to the provisions of 18 U.S.C. 1001 for the filing of false statement.

Date: 30 September 2004

Name & Title: J. N. Burkhalter, PE, Consulting Engineer

**4. Plats/Maps Provided:**

- a. Exhibit 1: Certified Location Plat
- b. Exhibit 2: Pit and Pad Layout
- c. Exhibit 3: Cross Section Pit and Pad
- d. Exhibit 4: Schematic of BOPE
- e. Topo Map A: Topo and Access
- f. Topo Map A-1: Road Map 2
- g. Topo Map B: Detail Road Map
- h. Topo Map C: One Mile Radius Map



Scale: 1" = 60'  
CONTOUR INTERVAL 1'

STATE #2-3

PAD CUT = 2053 CU. YDS.  
RESERVE PIT = 1185 CU. YDS.  
TOTAL CUT = 3238 CU. YDS.  
PAD FILL = 3402 CU. YDS.

PROPOSED PAD ELEVATION = 8374.9  
GROUND ELEVATION AT WELL HEAD = 8374.5

### LEGEND

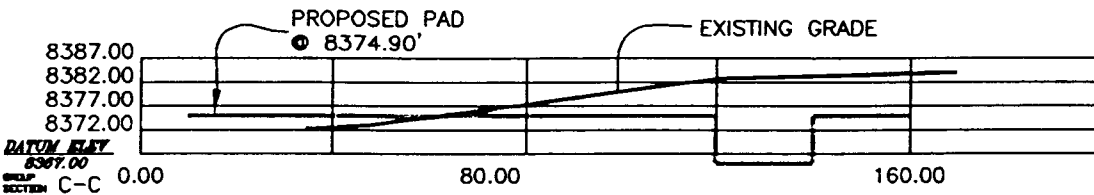
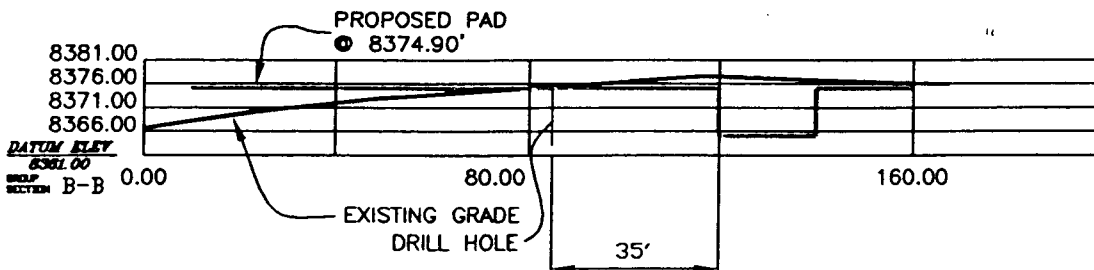
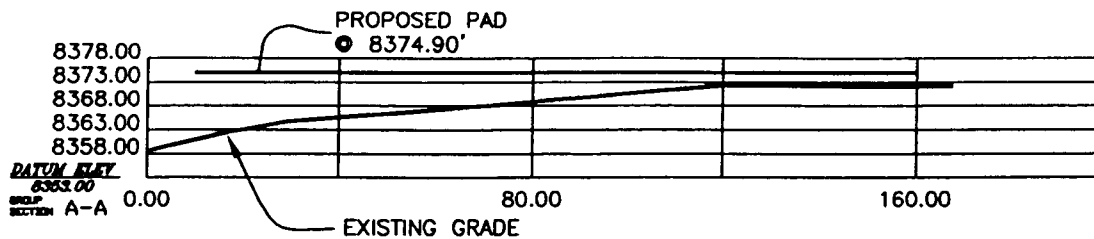
- WELL HEAD LOCATION
- PIPE LINE RISER
- 200' OFFSET DRILL HOLE
- PAD FINISH ELEVATION
- EXISTING GRADE
- CONTOUR MAJOR
- CONTOUR MINOR
- GAS LINE
- EXISTING DIRT ROAD
- PROPOSED ACCESS ROAD
- RESERVE PIT
- 4976.00' EL ELEVATION

### NOTES:

1. Elevations are determined from a GPS survey performed in May, 2004, transferring elevation from Mesa County CORS Point MC01.
2. Reserve Pit (TYP.): 20' X 10' X 1' J'
3. Pad Limits (TYP.): 150' X 300'

		2591 B 3/4 ROAD GRAND JUNCTION, CO 81503 PHONE: (970) 257-7146 FAX: (970) 255-7047	
		<b>CRESCENDO ENERGY PARTNERS, LLC</b> <b>GAS WELL #61</b> <b>SAN ARROYO UNIT</b> NW 1/4, SECTION 2, T16S, R24E, SLBM, GRAND COUNTY, UTAH	
DATE: 25 June 2004		SCALE 1" = 60'	
FILE: 2004-15pad61.dwg		PROJECT NO: 2004-15	
DRAWN: jc		SHEET 2 OF 5	

EXHIBIT 2



Site Volume Table: Unadjusted

	Cut	Fill	Net
PAD61	2053	3402	1349 (F)
RESEVRE PIT	1185		
TOTALS	3238	3402	164 (F)

STATE # 2-3



PROFESSIONAL  
SURVEYING, INC.

2501 B 3/4 ROAD  
GRAND JUNCTION, CO 81503  
PHONE: (970) 257-7146  
FAX: (970) 255-7047

CRESCENDO ENERGY PARTNERS, LLC  
GAS WELL #61  
SAN ARROYO UNIT  
NW 1/4, SECTION 2, T16S, R24E, SLBM,  
GRAND COUNTY, UTAH

DATE: 25 June 2004

SCALE 1" = 60'

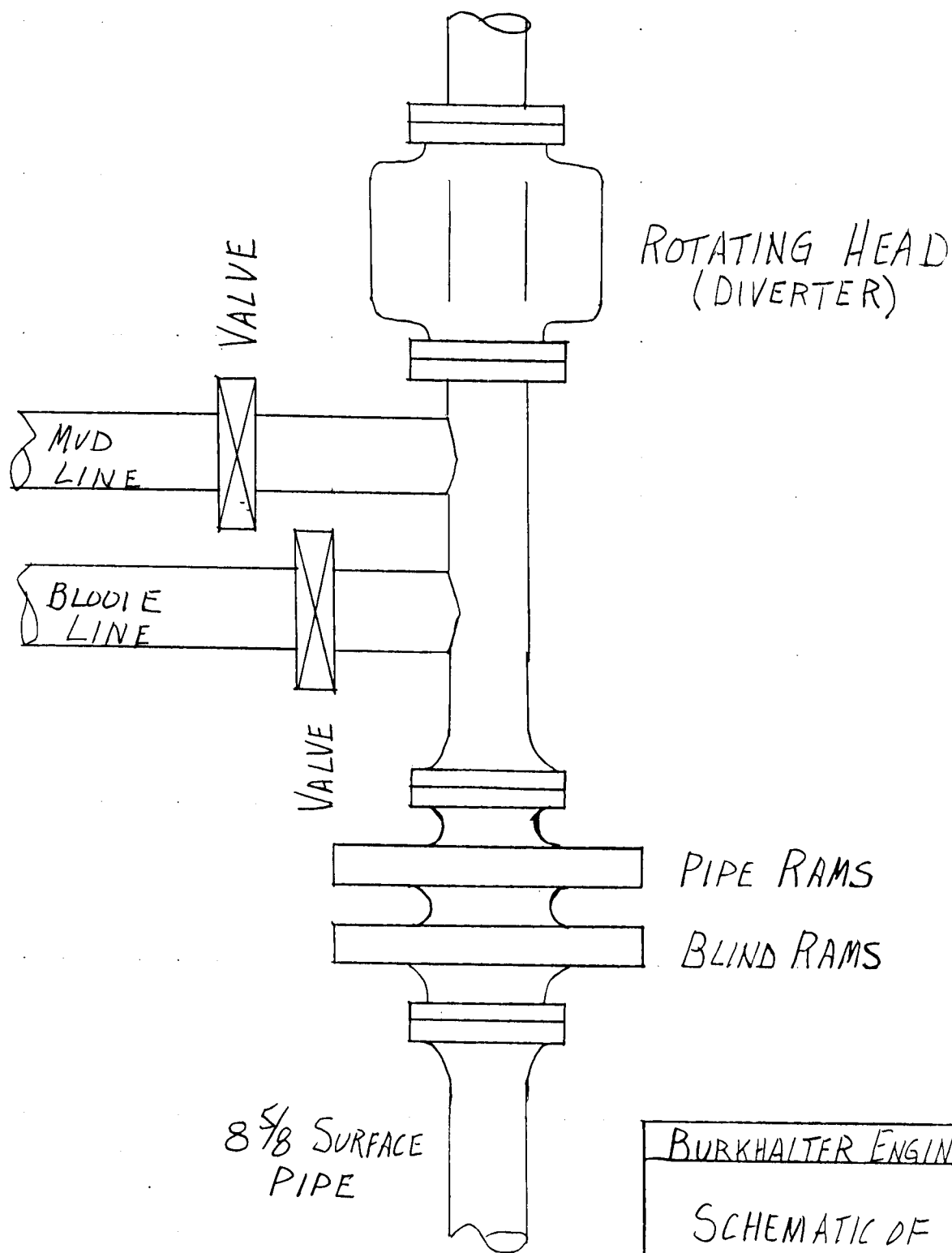
FILE: 2004-15pad61.dwg

PROJECT NO: 2004-15

DRAWN: jc

SHEET 3 OF 5

EXHIBIT 3

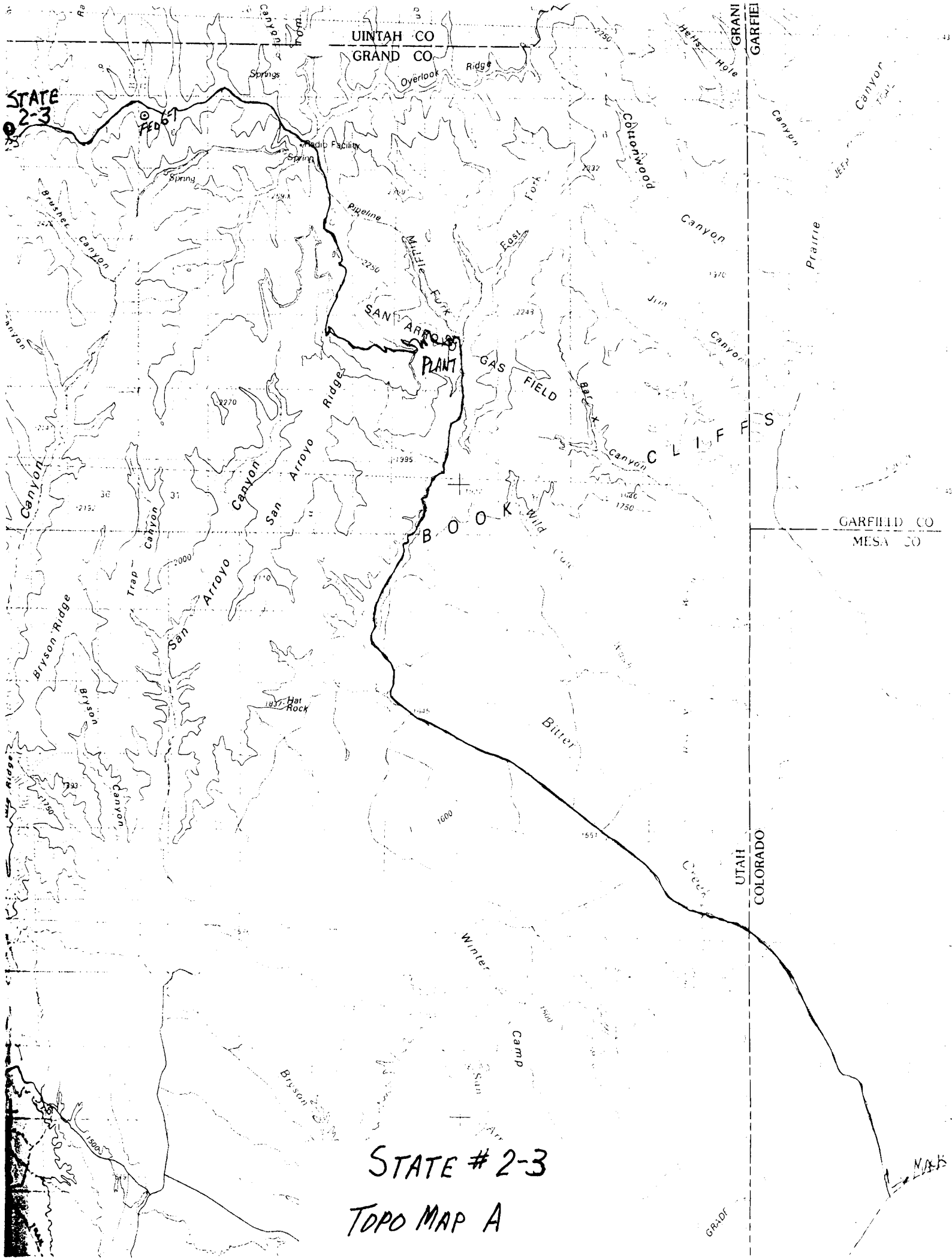


BURKHALTER ENGINEERING, INC.

SCHEMATIC OF 9"  
STANDARD 3000 LB  
BOP STACK

STATE 2-3

EXHIBIT 4



STATE  
#2-3

FEB 61

UINTAH CO  
GRAND CO

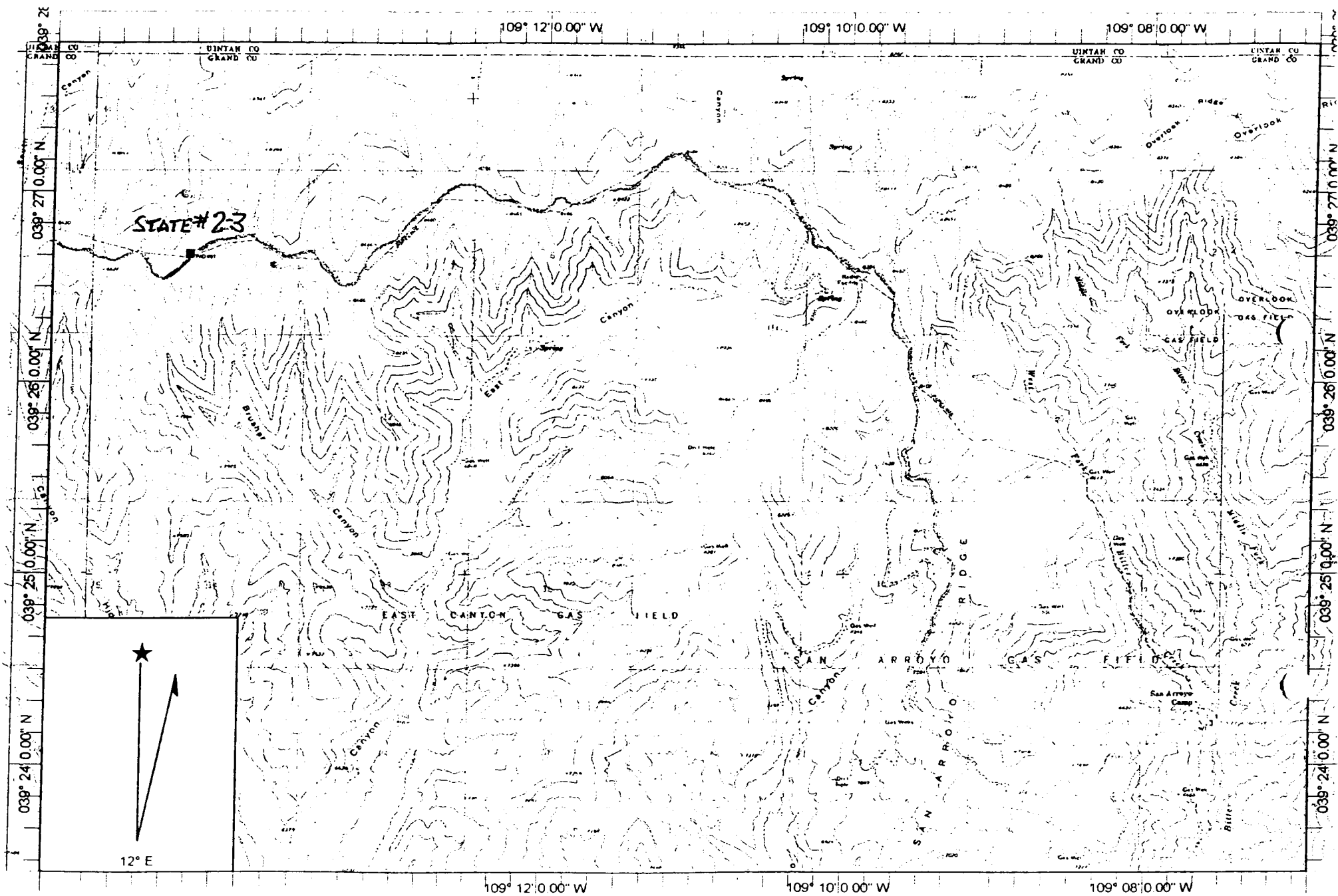
GRAND  
GARFIELD

GARFIELD CO  
MESA CO

UTAH  
COLORADO

STATE #2-3

TOPO MAP A

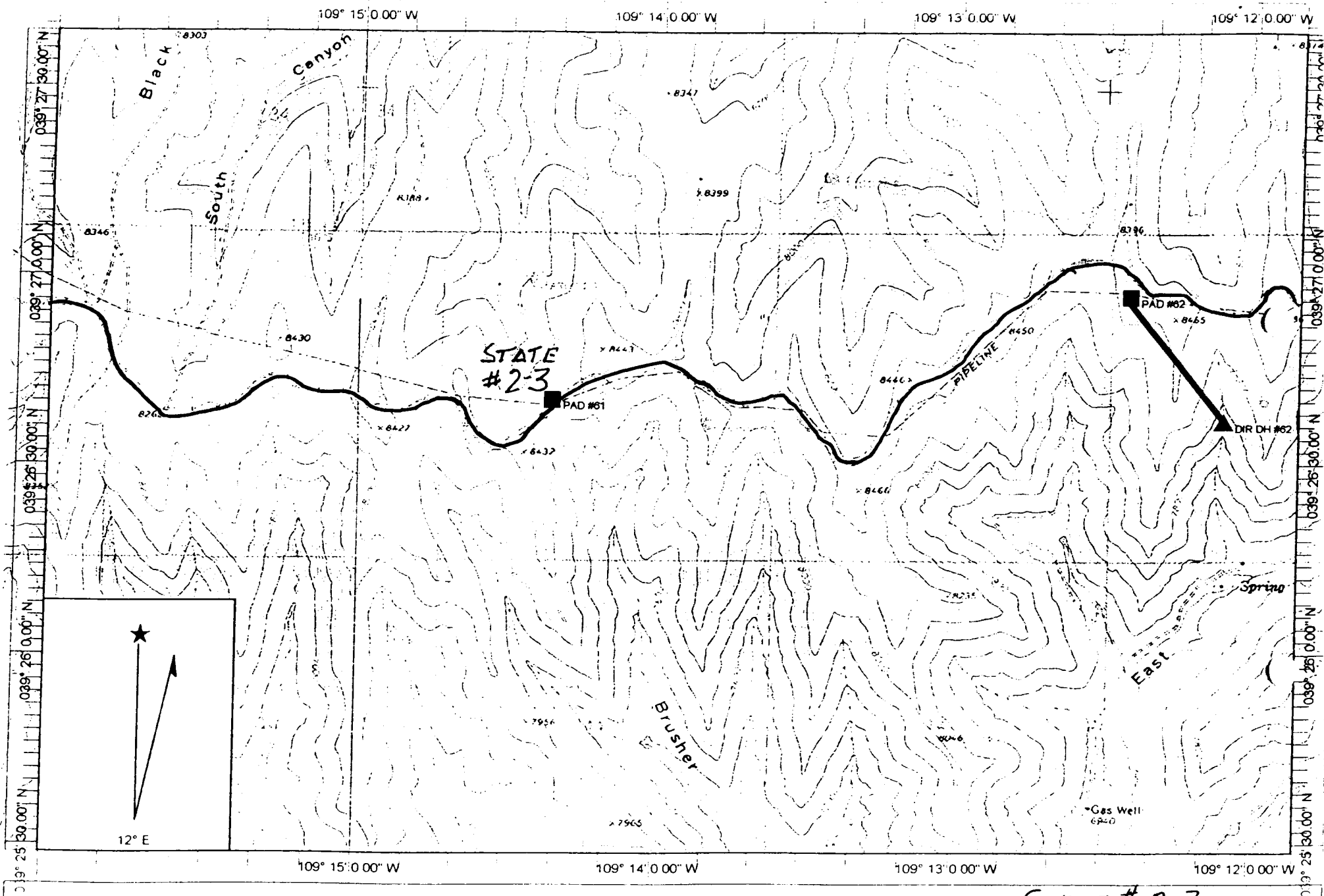


Name SAN ARROYO RIDGE  
 Date 7/1/2004  
 Scale 1 inch equals 4000 feet

Location 039° 25' 37.1" N 109° 11' 05.0" W  
 Caption SHEET 4 OF 5

STATE # 2-3

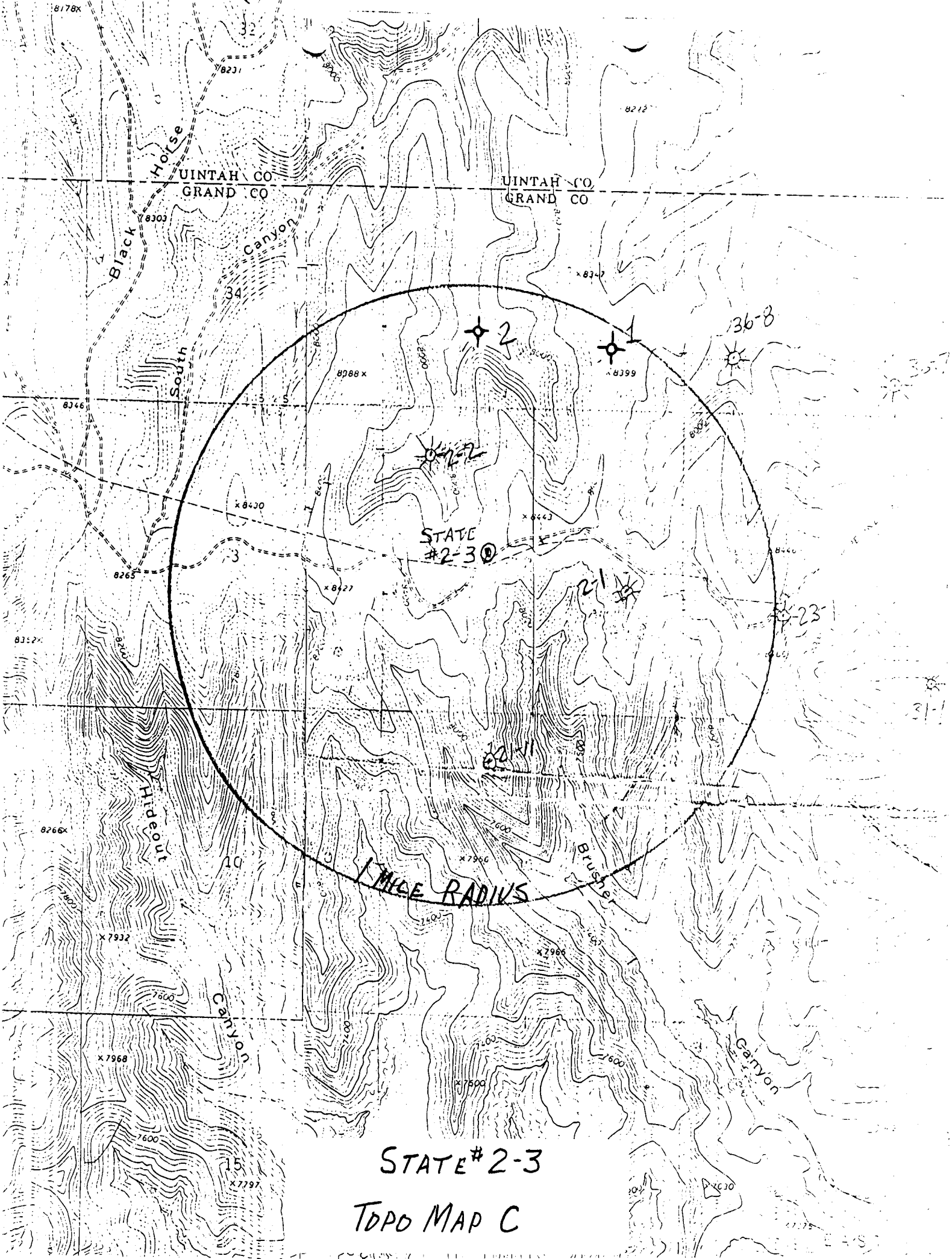
TOPO MAP A-1



Name: SAN ARROYO RIDGE  
 Date: 7/2/2004  
 Scale: 1 inch equals 2000 feet

Location: 39° 26' 33.8" N 109° 13' 50.2" W  
 Caption: SHEET 5 OF 5

STATE # 2-3  
 TOPD MAP B



UINTAH CO  
GRAND CO

UINTAH CO  
GRAND CO

Black Horse Canyon

South Canyon

Hideout Canyon

Brush Canyon

STATE #2-3

1 MILE RADIUS

STATE #2-3

TOPO MAP C

## WORKSHEET

## APPLICATION FOR PERMIT TO DRILL

004

APD RECEIVED: 10/06/2004

API NO. ASSIGNED: 43-019-31411

WELL NAME: STATE 2-3

OPERATOR: CRESCENDO ENERGY LLC ( N1365 )

CONTACT: J.N. BURKALTER

PHONE NUMBER: 432-697-7221

## PROPOSED LOCATION:

SE NW 02 160S 240E

SURFACE: 2536 FNL 1858 FWL

BOTTOM: 2536 ~~FNL~~ 1858 FWL

GRAND

EAST CANYON ( 195 )

LEASE TYPE: 3 - State

LEASE NUMBER: ML-22208

SURFACE OWNER: 3 - State

PROPOSED FORMATION: MRSN

COALBED METHANE WELL? NO

INSPECT LOCATN BY: / /

Tech Review	Initials	Date
Engineering	DKD	12/2/04
Geology		
Surface		

LATITUDE: 39.44489

LONGITUDE: -109.2398

## RECEIVED AND/OR REVIEWED:

☒ Plat☒ Bond: Fed[] Ind[] Sta[] Fee[]

(No. 442156 )

☒ Potash (Y/N)☒ Oil Shale 190-5 (B) or 190-3 or 190-13☒ Water Permit

(No. C004 )

☒ RDCC Review (Y/N)

(Date: )

☒ Fee Surf Agreement (Y/N)

## LOCATION AND SITING:

R649-2-3.

Unit

R649-3-2. General

Siting: 460' From Qtr/Qtr &amp; 920' Between Wells

R649-3-3. Exception

☒ Drilling Unit

Board Cause No: 149-1

Eff Date: 3-14-1973

Siting: 500' fr dvl u bdy of 2000' fr other wells.  
320 acre w/2 EY2

R649-3-11. Directional Drill

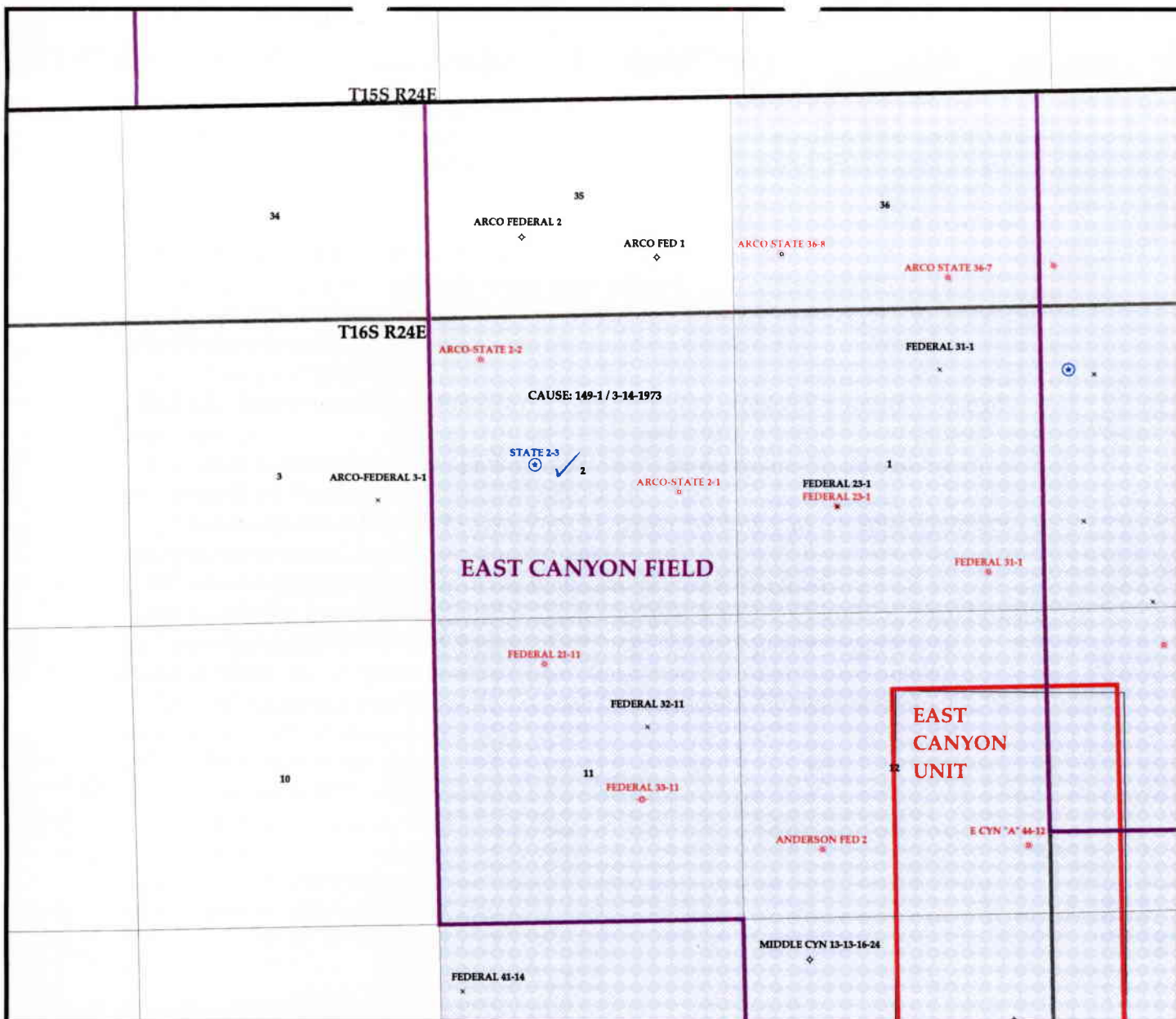
## COMMENTS:

Needs Presite (9-14-04)

STIPULATIONS: 1- Surface Csg Cont Stip

2- In accordance with Cause No 149-1, no more than one well shall produce from the same Sand Interval or zone in each drilling unit (w/2 Sec. 2)

3- STATEMENT OF BASIS



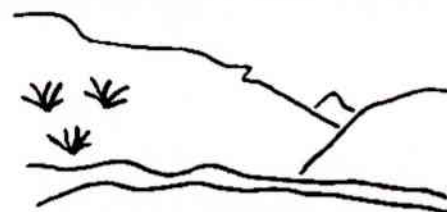
OPERATOR: CRESCENDO ENERGY LLC (N1365)

SEC. 2 T.16S R.24E

FIELD: EAST CANYON (195)

COUNTY: GRAND

CAUSE: 149-1 / 3-14-1973



Utah Oil Gas and Mining

#### Wells

- ⊕ GAS INJECTION
- ⊙ GAS STORAGE
- × LOCATION ABANDONED
- ⊕ NEW LOCATION
- ⊙ PLUGGED & ABANDONED
- ⊕ PRODUCING GAS
- PRODUCING OIL
- ⊙ SHUT-IN GAS
- SHUT-IN OIL
- × TEMP. ABANDONED
- ⊙ TEST WELL
- ⊕ WATER INJECTION
- ⊙ WATER SUPPLY
- ⊕ WATER DISPOSAL

#### Units.shp

- EXPLORATORY
- GAS STORAGE
- NF PP OIL
- NF SECONDARY
- PENDING
- PI OIL
- PP GAS
- PP GEOTHERML
- PP OIL
- SECONDARY
- TERMINATED

#### Fields.shp

- ABANDONED
- ACTIVE
- COMBINED
- INACTIVE
- PROPOSED
- STORAGE
- TERMINATED



PREPARED BY: DIANA WHITNEY  
DATE: 13-OCTOBER-2004

**ON-SITE PREDRILL EVALUATION**  
**Division of Oil, Gas and Mining**

**OPERATOR:** Crescendo Energy, LLC

**WELL NAME & NUMBER:** State #2-3

**API NUMBER:** 43-019-31411

**LEASE:** State **FIELD/UNIT:** East Canyon

**LOCATION:** 1/4, 1/4 SENW **Sec:** 2 **TWP:** 16S **RNG:** 24E 2000 FSL 1520 FWL

**LEGAL WELL SITING:** 460 F **SEC. LINE;** 460 F **1/4, 1/4 LINE;** 460 F **ANOTHER WELL.**

**GPS COORD (UTM):** X =651548 E; Y =4367419 N **SURFACE OWNER:** SITLA

**PARTICIPANTS**

Bart Kettle(DOGM), Tony Wright (DWR), Newt Burkhalter (Burkhalter Engineering)

**REGIONAL/LOCAL SETTING & TOPOGRAPHY**

Proposed location is 37 miles northwest of Mack Colorado in Grand County Utah. The proposed location is atop of the Bookcliffs divide located adjacent to the Seep Ridge Road in an 18-20" precept zone. Mountain Browse rangelands cut by deep rocky pinion/juniper and Douglas fir canyons surround the well site. Topography to the south drops off quickly into a narrow band of P/J woodlands, with extensive salt scrub clay flats in the valley floor. Slopes are more gradual to the north, with extensive P/J woodlands eventually giving way to the salt scrub communities. Due to the dry nature of the surrounding terrain the divide portion of the Bookcliffs is classified as critical summer wildlife habitat. The Bookcliffs divide separates watersheds that drain to the north into Sweetwater Creek and the south into the Colorado River. The proposed location is located near the center of the ridge top in a small saddle, there are no perennial streams located in close proximity to the location. Drainages in the immediate area are ephemeral in nature, being dry throughout the warmer months of the year. Perennial and intermittent springs are located near the bottom of adjacent canyons, water bodies located near the ridge tops are predominantly dirt tanks developed to trap monsoon moisture for livestock watering. Access to the well site can be gained via the San Arroyo road from the Grand Valley, or the Seep Ridge Road from the Uintah Basin.

**SURFACE USE PLAN**

CURRENT SURFACE USE: Early fall cattle grazing, summer big game habitat, seasonal recreation, oil and gas development.

PROPOSED SURFACE DISTURBANCE: 150' x 300'

LOCATION OF EXISTING WELLS WITHIN A 1 MILE RADIUS: No known water wells. Two known P&A wells: S ½ SE Sec 35, T 15.5 S, R 24 E and SW NE SW Sec 35, T 15.5 S, R 24 E. There are three known producing wells NW NE SE Sec 2, T 16 S, R 24 E, SE NW NW Sec 2, T 16 S, R 24 E and SW NE NW Sec 11, T 16 S, R 24 E.

LOCATION OF PRODUCTION FACILITIES AND PIPELINES: Production facilities such as separators, dehydrators, flow meters and tanks will be located on-site. The Sales Gas line will be installed to the south staying on existing lease where it will be connected to an existing pipeline.

SOURCE OF CONSTRUCTION MATERIAL: On-site

ANCILLARY FACILITIES: None required

WILL DRILLING AT THIS LOCATION GENERATE PUBLIC INTEREST OR CONCERNS? (EXPLAIN): Drilling at this location is not expected to generate significant public concern. With the exception of the fall hunting seasons there is limited public visitation into this portion of the Bookcliffs. The closest residence are located ~15 miles away at the Cripple Cowboy Ranch in the head of Bitter Creek, and the DeLambert Ranch in Main Canyon.

#### **WASTE MANAGEMENT PLAN:**

Garbage and other trash will be contained in an acceptable trash container. Refuse will be transported to an approved sanitary landfill. Sewage will be handled in self-contained portable toilets and contents hauled off location to an authorized facility in accordance with State and local regulations.

Reserve pit will be fenced and lined with a 12-mil liner prior to use. Drill cuttings will be constrained in the reserve pit. Produced liquid hydrocarbons will be constrained in test tanks during completion and testing.

#### **ENVIRONMENTAL PARAMETERS**

AFFECTED FLOODPLAINS AND/OR WETLANDS: No floodplains or wetlands will be affected by the drilling of this well. Proposed location is located above the head of an ephemeral wash, pad construction is not expected to alter drainage function or sediment load.

FLORA/FAUNA: Elk, Mule Deer, Black Bear, Cougar, Bobcat, rabbits, songbirds, raptors, and lizards. Grasses: June grass, Mutton grass, Elk sedge and Wheatgrass. Forbs: Vetch, Western yarrow, Long leaf phlox and Penstemon. Shrubs: Buckwheat, Bitterbrush, Alderleaf mountain mahogany, Utah service berry, Wyoming sage, Common snowberry, Apple berry and Gamble oak. Trees: Pinion pine and Douglas fir. Other: Prickly pear

SOIL TYPE AND CHARACTERISTICS: Light brown Sandy Clay Loam, sandstone and gray shale fragments present on surface.

SURFACE FORMATION & CHARACTERISTICS: Alternating sandstone and shale layers cut by deep canyons. Soils are erosive in nature due to lack of litter/vegetation over entire surface area and steep slopes.

EROSION/SEDIMENTATION/STABILITY: Fine soils prone to wind and water erosion when disturbed. Excessive sedimentation and erosion is not

expected.

PALEONTOLOGICAL POTENTIAL: None noted

**RESERVE PIT**

CHARACTERISTICS: 20'x160'x10'

LINER REQUIREMENTS (Site Ranking Form attached): Liner Required

**SURFACE RESTORATION/RECLAMATION PLAN**

Rat and mouse holes will be backfilled upon release of the drilling rig from location. The pit will be backfilled when the contents have been sufficiently dewatered. If the well is productive areas not required for operations will be seeded. Noxious weeds will be controlled on the location in accordance with State guidelines. In the event of a dry hole the location will be re-contoured, the topsoil distributed evenly over the entire location and then re-seeded.

SURFACE AGREEMENT: As per SITLA mineral lease.

CULTURAL RESOURCES/ARCHAEOLOGY: Class III Cultural Resource Inventory has been conducted by Uncompahgre Archaeological Consultants.

**OTHER OBSERVATIONS/COMMENTS**

DWR classifies area as critical summer range for elk and mule deer, request to restrict construction and drilling between May 15 and July 5. DWR request that operator take actions to prevent bears from associating operations as a food source. Maintain food in bear proof containers, place trash in an enclosed container, assure that container remains closed to prevent access by foraging bears. DWR request operator inspect guy wires for bird carcasses.

**ATTACHMENTS**

Photos of this location were taken and placed on file.

Bart Kettle  
DOGM REPRESENTATIVE

September 16, 2004 9:54  
DATE/TIME

**Evaluation Ranking Criteria and Ranking Score  
For Reserve and Onsite Pit Liner Requirements**

<u>Site-Specific Factors</u>	<u>Ranking</u>	<u>Site Ranking</u>
Distance to Groundwater (feet)		
>200	0	
100 to 200	5	
75 to 100	10	
25 to 75	15	
<25 or recharge area	20	<u>0</u>
Distance to Surf. Water (feet)		
>1000	0	
300 to 1000	2	
200 to 300	10	
100 to 200	15	
< 100	20	<u>2</u>
Distance to Nearest Municipal Well (feet)		
>5280	0	
1320 to 5280	5	
500 to 1320	10	
<500	20	<u>0</u>
Distance to Other Wells (feet)		
>1320	0	
300 to 1320	10	
<300	20	<u>0</u>
Native Soil Type		
Low permeability	0	
Mod. permeability	10	
High permeability	20	<u>10</u>
Fluid Type		
Air/mist	0	
Fresh Water	5	
TDS >5000 and <10000	10	
TDS >10000 or Oil Base Mud Fluid	15	
containing significant levels of hazardous constituents	20	<u>5</u>
Drill Cuttings		
Normal Rock	0	
Salt or detrimental	10	<u>0</u>
Annual Precipitation (inches)		
<10	0	
10 to 20	5	
>20	10	<u>5</u>
Affected Populations		
<10	0	
10 to 30	6	
30 to 50	8	
>50	10	<u>0</u>
Presence of Nearby Utility Conduits		
Not Present	0	
Unknown	10	
Present	15	<u>0</u>

**Final Score**      22      (Level I Sensitivity)

Sensitivity Level I = 20 or more; total containment is required, consider criteria for excluding pit use.

Sensitivity Level II = 15-19; lining is discretionary.

Sensitivity Level III = below 15; no specific lining is required.

**DIVISION OF OIL, GAS AND MINING**  
**APPLICATION FOR PERMIT TO DRILL**  
**STATEMENT OF BASIS**

**OPERATOR:** Crescendo Energy, LLC  
**WELL NAME & NUMBER:** State#2-3  
**API NUMBER:** 43-019-31411  
**LOCATION:** 1/4, 1/4 SENW Sec:2 TWP: 16S RNG: 24E 2000 FSL 1520 FWL

**Geology/Ground Water:**

Significant volumes of high quality ground water are likely to be encountered in the bedrock at this location. A thin, moderately permeable soil is likely to be developed on the "a" Tongue of the Douglas Creek Member of the Eocene age Green River Formation. Quality water is likely to be encountered in permeable Tertiary age Green River/Wasatch and Cretaceous age Mesaverde Group strata. The base of moderately saline ground water is found at about 3,500' total depth (TD), in a well within 1/2 mile of the subject location. The proposed casing and cementing program should adequately isolate any zones of fresh water that may be penetrated. This well is along the Roan Cliffs Overlook Road (ridgeline) and is essentially at the head of East Canyon to the south and South and Railroad Canyons to the north. No underground and one surface water rights have been filed on any area within a mile of the proposed well site.

**Reviewer:** Christopher J. Kierst **Date:** 9/24/2004

**Surface:**

On-site conducted September 14, 2004. In attendance: Bart Kettle (DOGM), Tony Wright (DWR) and Newt Burkhalter (Burkhalter Engineering), invited but choosing not to attend Ed Bonner (SITLA) and Mary Hofhine (Grand County).

Proposed location lies within DWR classified "critical" mule deer and elk summer range, therefore request made to avoid construction and drilling from May 15 to July 5. Location is one of few areas DWR is allowed to release problem bears, concern that bears will quickly identify rig as a food source. Division concerned that such bears will eventually create problems with campers and have to be dispatched. DWR requested that measures be taken to keep bears from foraging in trash containers, and that rig hands or associated service personal not leave food out for them. DWR requested that operator inspect location for birds killed by colliding into guy wires during drilling. The higher precipitation zone increases the risk for snowmelt or rainwaters to flood location. Due to its position at the bottom of a small hill, turnouts or water bars along access road may be required to prevent water discharged from the Seep Ridge Road from entering location. To assure that location does not become flooded diversion ditches will be constructed on the southeast portion of the location and water bars/turnouts constructed as needed on access road.

**Reviewer:** Bart Kettle **Date:** September 16, 2004

**Conditions of Approval/Application for Permit to Drill:**

1. Construct diversion ditch around higher portions of location and water bars/turnouts along access road.
2. A synthetic liner with a minimum thickness of 12 mils shall be properly installed and maintained in the reserve pit.





**ON-SITE PREDRILL EVALUATION**  
**Division of Oil, Gas and Mining**

**OPERATOR:** Crescendo Energy, LLC

**WELL NAME & NUMBER:** State #2-3

**API NUMBER:** 43-019-31411

**LEASE:** State **FIELD/UNIT:** East Canyon

**LOCATION:** 1/4, 1/4 SE Sec: 2 TWP: 16S RNG: 24E 2000 FSL 1520 FWL

**LEGAL WELL SITING:** 460 F **SEC. LINE;** 460 F 1/4, 1/4 **LINE;** 460 F **ANOTHER WELL.**

**GPS COORD (UTM):** X =651548 E; Y =4367419 N **SURFACE OWNER:** SITLA

**PARTICIPANTS**

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**REGIONAL/LOCAL SETTING & TOPOGRAPHY**

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CURRENT SURFACE USE: Early fall cattle grazing, summer big game habitat, seasonal recreation, oil and gas development.

PROPOSED SURFACE DISTURBANCE: 150' x 300'

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LOCATION OF PRODUCTION FACILITIES AND PIPELINES: Production facilities such as separators, dehydrators, flow meters and tanks will be located on-site. The Sales Gas line will be installed to the south staying on existing lease where it will be connected to an existing pipeline.

SOURCE OF CONSTRUCTION MATERIAL: On-site

ANCILLARY FACILITIES: None required

WILL DRILLING AT THIS LOCATION GENERATE PUBLIC INTEREST OR CONCERNS? (EXPLAIN): Drilling at this location is not expected to generate significant public concern. With the exception of the fall hunting seasons there is limited public visitation into this portion of the Bookcliffs. The closest residence are located ~15 miles away at the Cripple Cowboy Ranch in the head of Bitter Creek, and the DeLambert Ranch in Main Canyon.

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#### **ENVIRONMENTAL PARAMETERS**

AFFECTED FLOODPLAINS AND/OR WETLANDS: No floodplains or wetlands will be affected by the drilling of this well. Proposed location is located above the head of an ephemeral wash, pad construction is not expected to alter drainage function or sediment load.

FLORA/FAUNA: Elk, Mule Deer, Black Bear, Cougar, Bobcat, rabbits, songbirds, raptors, and lizards.  
Grasses: June grass, Mutton grass, Elk sedge and Wheatgrass. Forbs: Vetch, Western yarrow, Long leaf phlox and Penstomen. Shrubs: Buckwheat, Bitterbrush, Alderleaf mountain mahogany, Utah service berry, Wyoming sage, Common snowberry, Apple berry and Gamble oak. Trees: Pinion pine and Douglas fir. Other: Prickly pear

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EROSION/SEDIMENTATION/STABILITY: Fine soils prone to wind and water erosion when disturbed. Excessive sedimentation and erosion is not

expected.

PALEONTOLOGICAL POTENTIAL: None noted

**RESERVE PIT**

CHARACTERISTICS: 20'x160'x10'

LINER REQUIREMENTS (Site Ranking Form attached): Liner Required

**SURFACE RESTORATION/RECLAMATION PLAN**

Rat and mouse holes will be backfilled upon release of the drilling rig from location. The pit will be backfilled when the contents have been sufficiently dewatered. If the well is productive areas not required for operations will be seeded. Noxious weeds will be controlled on the location in accordance with State guidelines. In the event of a dry hole the location will be re-contoured, the topsoil distributed evenly over the entire location and then re-seeded.

SURFACE AGREEMENT: As per SITLA mineral lease.

CULTURAL RESOURCES/ARCHAEOLOGY: Class III Cultural Resource Inventory has been conducted by Uncompahgre Archaeological Consultants.

**OTHER OBSERVATIONS/COMMENTS**

DWR classifies area as critical summer range for elk and mule deer, request to restrict construction and drilling between May 15 and July 5. DWR request that operator take actions to prevent bears from associating operations as a food source. Maintain food in bear proof containers, place trash in an enclosed container, assure that container remains closed to prevent access by foraging bears. DWR request operator inspect guy wires for bird carcasses.

**ATTACHMENTS**

Photos of this location were taken and placed on file.

Bart Kettle  
DOGM REPRESENTATIVE

September 16, 2004 9:54  
DATE/TIME

**Evaluation Ranking Criteria and Ranking Score  
For Reserve and Onsite Pit Liner Requirements**

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<25 or recharge area	20	<u>0</u>
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< 100	20	<u>2</u>
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1320 to 5280	5	
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<500	20	<u>0</u>
Distance to Other Wells (feet)		
>1320	0	
300 to 1320	10	
<300	20	<u>0</u>
Native Soil Type		
Low permeability	0	
Mod. permeability	10	
High permeability	20	<u>10</u>
Fluid Type		
Air/mist	0	
Fresh Water	5	
TDS >5000 and <10000	10	
TDS >10000 or Oil Base Mud Fluid	15	
containing significant levels of hazardous constituents	20	<u>5</u>
Drill Cuttings		
Normal Rock	0	
Salt or detrimental	10	<u>0</u>
Annual Precipitation (inches)		
<10	0	
10 to 20	5	
>20	10	<u>5</u>
Affected Populations		
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10 to 30	6	
30 to 50	8	
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Presence of Nearby Utility Conduits		
Not Present	0	
Unknown	10	
Present	15	<u>0</u>

**Final Score**      22      (Level I Sensitivity)

Sensitivity Level I = 20 or more; total containment is required, consider criteria for excluding pit use.

Sensitivity Level II = 15-19; lining is discretionary.

Sensitivity Level III = below 15; no specific lining is required.

**DIVISION OF OIL, GAS AND MINING**  
**APPLICATION FOR PERMIT TO DRILL**  
**STATEMENT OF BASIS**

**OPERATOR:** Crescendo Energy, LLC  
**WELL NAME & NUMBER:** State#2-3  
**API NUMBER:** 43-019-31411  
**LOCATION:** 1/4,1/4 SENW Sec:2 TWP: 16S RNG: 24E 2000 FSL 1520 FWL

**Geology/Ground Water:**

Significant volumes of high quality ground water are likely to be encountered in the bedrock at this location. A thin, moderately permeable soil is likely to be developed on the "a" Tongue of the Douglas Creek Member of the Eocene age Green River Formation. Quality water is likely to be encountered in permeable Tertiary age Green River/Wasatch and Cretaceous age Mesaverde Group strata. The base of moderately saline ground water is found at about 3,500' total depth (TD), in a well within ½ mile of the subject location. The proposed casing and cementing program should adequately isolate any zones of fresh water that may be penetrated. It is noted that the operator proposes to use a 2% KCl mud to drill the intermediate cased portion of the well (from ~ 250' to 3,900' TD). It is suggested that a fresh water mud system be used to drill this interval to avoid increasing the salinity of the local high quality ground water. This well is along the Roan Cliffs Overlook Road (ridgeline) and is essentially at the head of East Canyon to the south and South and Railroad Canyons to the north. No underground and one surface water rights have been filed on any area within a mile of the proposed well site.

**Reviewer:** Christopher J. Kierst **Date:** 9/24/2004

**Surface:**

On-site conducted September 14, 2004. In attendance: Bart Kettle (DOGM), Tony Wright (DWR) and Newt Burkhalter (Burkhalter Engineering), invited but choosing not to attend Ed Bonner (SITLA) and Mary Hofhine (Grand County).

Proposed location lies within DWR classified "critical" mule deer and elk summer range, therefore request made to avoid construction and drilling from May 15 to July 5. Location is one of few areas DWR is allowed to release problem bears, concern that bears will quickly identify rig as a food source. Division concerned that such bears will eventually create problems with campers and have to be dispatched. DWR requested that measures be taken to keep bears from foraging in trash containers, and that rig hands or associated service personal not leave food out for them. DWR requested that operator inspect location for birds killed by colliding into guy wires during drilling. The higher precipitation zone increases the risk for snowmelt or rainwaters to flood location. Due to its position at the bottom of a small hill, turnouts or water bars along access road may be required to prevent water discharged from the Seep Ridge Road from entering location. To assure that location does not become flooded diversion ditches will be constructed on the southeast portion of the location and water bars/turnouts constructed as needed on access road.

**Reviewer:** Bart Kettle **Date:** September 16, 2004

**Conditions of Approval/Application for Permit to Drill:**

1. Construct diversion ditch around higher portions of location and water bars/turnouts along access road.
2. A synthetic liner with a minimum thickness of 12 mils shall be properly installed and maintained in the reserve pit.







State Online Services

Agency List

Business.utah.gov

Search Utah.gov

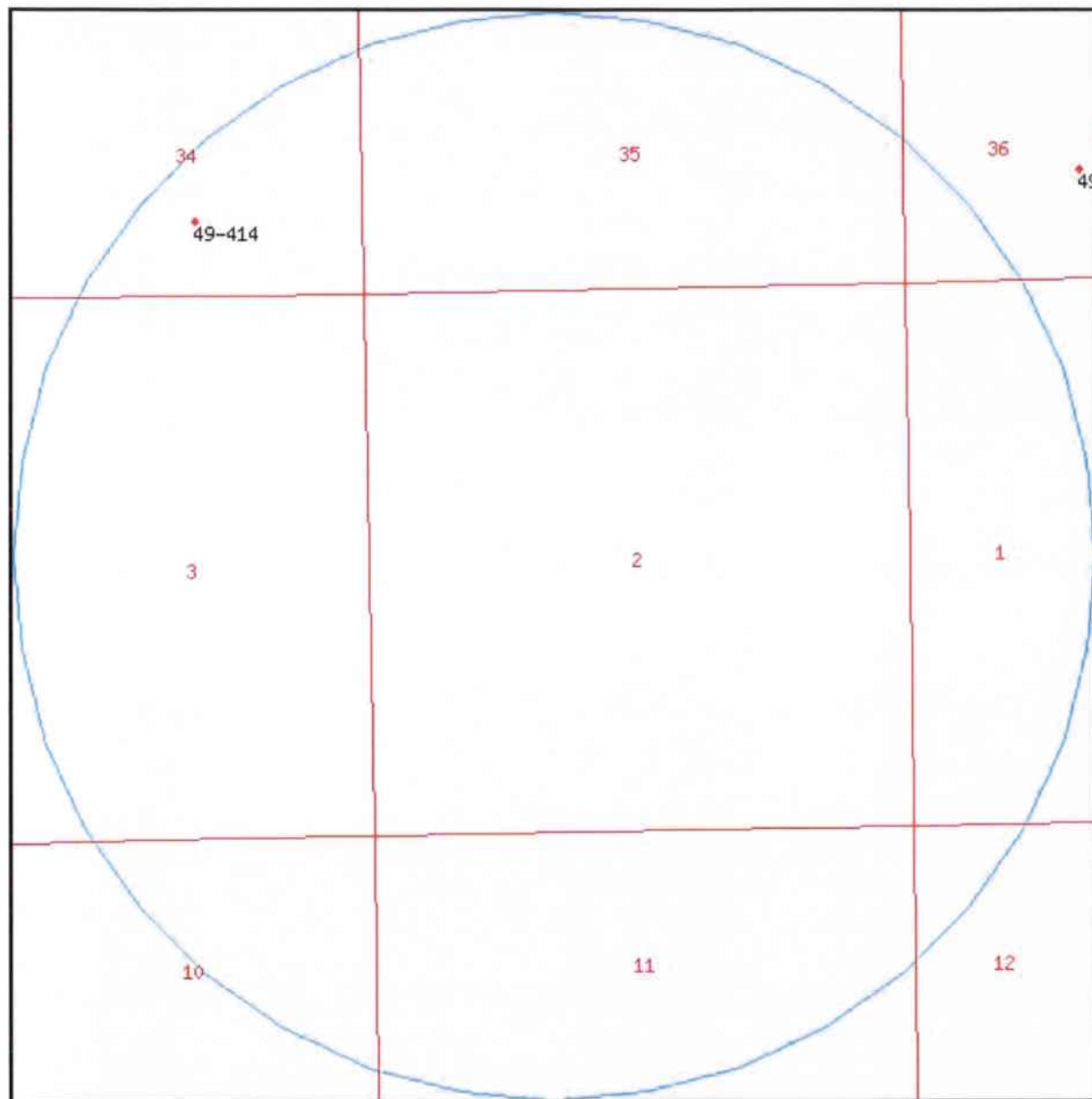


# UTAH DIVISION OF WATER RIGHTS

## WRPLAT Program Output Listing

Version: 2004.03.26.00      Rundate: 09/24/2004 03:11 PM

Radius search of 5280 feet from a point S2536 E1858 from the NW corner, section 02, Township 16S, Range 24E, SL  
b&m Criteria:wrtypes=W,C,E podtypes=S,U,D,Sp,P status=U,A,P usetypes=all



0 700 1400 2100 2800 ft

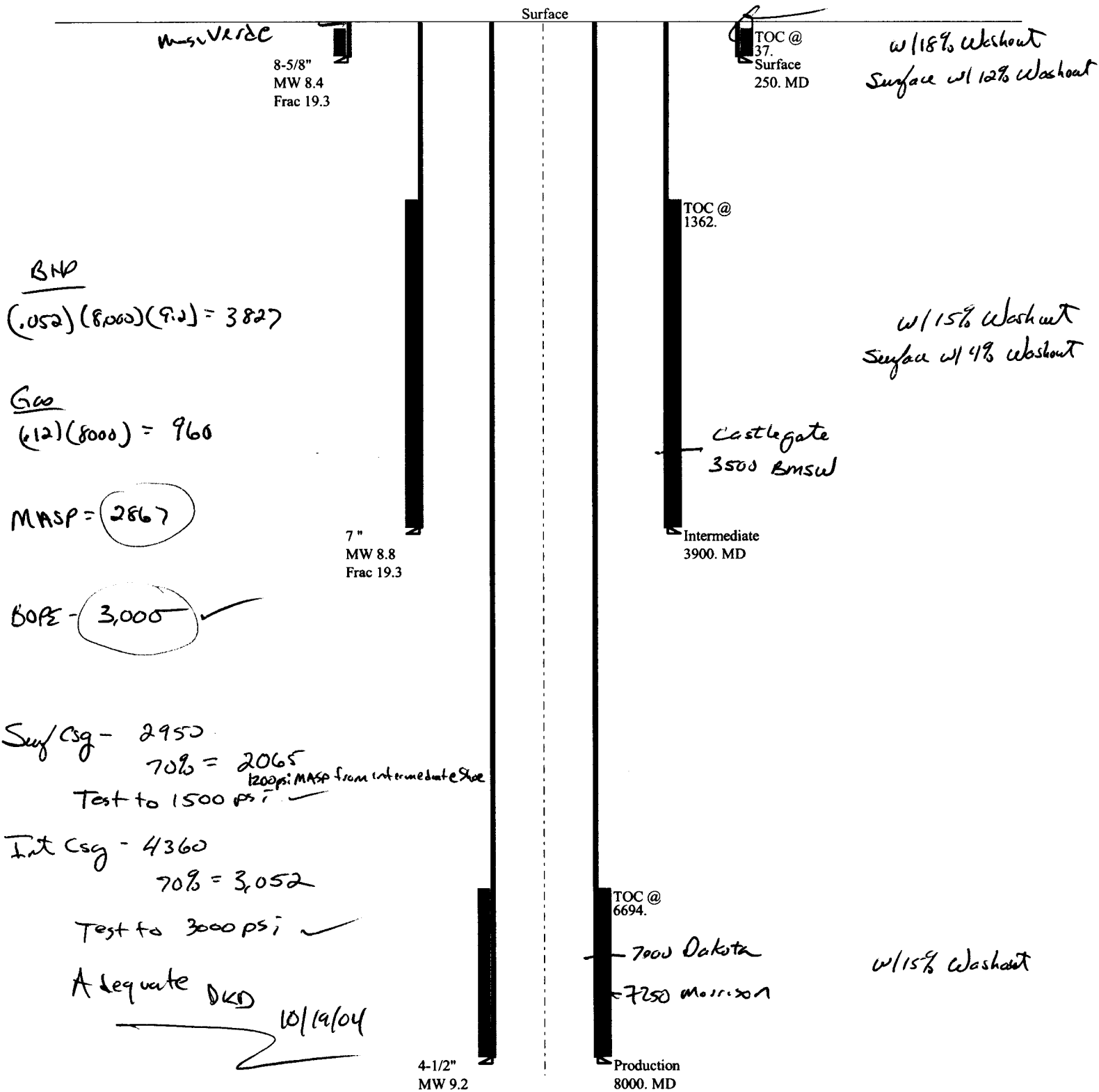
## Water Rights

WR Number	Diversion Type/Location	Well Log	Status	Priority	Uses	CFS	ACFT	Owner Name
<a href="#">49-182</a>	Surface N1101 E1708 SW 36 15HS 24E SL		P	19160221	S	0.003	0.000	FRANK A. BREWER MACK CO VERNAL DISTRICT USA
<a href="#">49-414</a>	Surface N700 W1650 SE 34 15HS 24E SL		P	1861	OS	0.015	0.000	BUREAU OF LAND MANAGEMENT 170 SOUTH 500 EAST

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# 09-04 Crescendo State 2-

## Casing Schematic



Well name:

**09-04 Crescendo State 2-3**Operator: **Crescendo Energy, LLC**String type: **Surface**

Project ID:

43-019-31411

Location: **Grand County****Design parameters:****Collapse**Mud weight: 8.400 ppg  
Design is based on evacuated pipe.**Minimum design factors:****Collapse:**

Design factor 1.125

**Burst:**

Design factor 1.00

**Environment:**H2S considered? No  
Surface temperature: 65 °F  
Bottom hole temperature: 68 °F  
Temperature gradient: 1.40 °F/100ft  
Minimum section length: 200 ft

Cement top: 37 ft

**Burst**Max anticipated surface pressure: 0 psi  
Internal gradient: 0.457 psi/ft  
Calculated BHP 114 psi

No backup mud specified.

**Tension:**8 Round STC: 1.80 (J)  
8 Round LTC: 1.80 (J)  
Buttress: 1.60 (J)  
Premium: 1.50 (J)  
Body yield: 1.50 (B)Tension is based on air weight.  
Neutral point: 218 ft

Non-directional string.

**Re subsequent strings:**Next setting depth: 3,900 ft  
Next mud weight: 8.800 ppg  
Next setting BHP: 1,783 psi  
Fracture mud wt: 19.250 ppg  
Fracture depth: 250 ft  
Injection pressure 250 psi

Run Seq	Segment Length (ft)	Size (in)	Nominal Weight (lbs/ft)	Grade	End Finish	True Vert Depth (ft)	Measured Depth (ft)	Drift Diameter (in)	Internal Capacity (ft³)
1	250	8.625	24.00	J-55	ST&C	250	250	7.972	12
Run Seq	Collapse Load (psi)	Collapse Strength (psi)	Collapse Design Factor	Burst Load (psi)	Burst Strength (psi)	Burst Design Factor	Tension Load (Kips)	Tension Strength (Kips)	Tension Design Factor
1	109	1370	12.558	114	2950	25.81	6	244	40.67 J

Prepared by: Clinton Dworshak  
Utah Div. of Oil & MiningPhone: 801-538-5280  
FAX: 801-359-3940Date: October 14, 2004  
Salt Lake City, Utah**Remarks:**

Collapse is based on a vertical depth of 250 ft, a mud weight of 8.4 ppg. The casing is considered to be evacuated for collapse purposes. Collapse strength is based on the Westcott, Dunlop &amp; Kemler method of biaxial correction for tension.

Burst strength is not adjusted for tension.

*Engineering responsibility for use of this design will be that of the purchaser.*

Well name:  
 Operator: **Crescendo Energy, LLC**  
 String type: Intermediate  
 Location: Grand County

# 09-04 Crescendo State 2-3

Project ID:  
 43-019-31411

## Design parameters:

### Collapse

Mud weight: 8.800 ppg  
 Design is based on evacuated pipe.

## Minimum design factors:

### Collapse:

Design factor 1.125

### Burst:

Design factor 1.00

## Environment:

H2S considered? No  
 Surface temperature: 65 °F  
 Bottom hole temperature: 120 °F  
 Temperature gradient: 1.40 °F/100ft  
 Minimum section length: 250 ft

Cement top: 1,362 ft

### Burst

Max anticipated surface pressure: 2,863 psi  
 Internal gradient: 0.120 psi/ft  
 Calculated BHP 3,331 psi

No backup mud specified.

### Tension:

8 Round STC: 1.80 (J)  
 8 Round LTC: 1.80 (J)  
 Buttress: 1.60 (J)  
 Premium: 1.50 (J)  
 Body yield: 1.50 (B)

Tension is based on air weight.  
 Neutral point: 3,384 ft

Non-directional string.

### Re subsequent strings:

Next setting depth: 8,000 ft  
 Next mud weight: 9.200 ppg  
 Next setting BHP: 3,823 psi  
 Fracture mud wt: 19.250 ppg  
 Fracture depth: 3,900 ft  
 Injection pressure 3,900 psi

Run Seq	Segment Length (ft)	Size (in)	Nominal Weight (lbs/ft)	Grade	End Finish	True Vert Depth (ft)	Measured Depth (ft)	Drift Diameter (in)	Internal Capacity (ft³)
1	3900	7	23.00	J-55	ST&C	3900	3900	6.25	180.2
Run Seq	Collapse Load (psi)	Collapse Strength (psi)	Collapse Design Factor	Burst Load (psi)	Burst Strength (psi)	Burst Design Factor	Tension Load (Kips)	Tension Strength (Kips)	Tension Design Factor
1	1783	3270	1.834	3331	4360	1.31	90	284	3.17 J

Prepared by: Clinton Dworshak  
 Utah Div. of Oil & Mining

Phone: 801-538-5280  
 FAX: 801-359-3940

Date: October 14, 2004  
 Salt Lake City, Utah

### Remarks:

Collapse is based on a vertical depth of 3900 ft, a mud weight of 8.8 ppg. The casing is considered to be evacuated for collapse purposes. Collapse strength is based on the Westcott, Dunlop & Kemler method of biaxial correction for tension.

Burst strength is not adjusted for tension.

*Engineering responsibility for use of this design will be that of the purchaser.*

Well name:  
 Operator: **Crescendo Energy, LLC**  
 String type: Production  
 Location: Grand County

## 09-04 Crescendo State 2-3

Project ID:  
 43-019-31411

### Design parameters:

#### Collapse

Mud weight: 9.200 ppg  
 Design is based on evacuated pipe.

### Minimum design factors:

#### Collapse:

Design factor 1.125

#### Burst:

Design factor 1.00

### Environment:

H2S considered? No  
 Surface temperature: 65 °F  
 Bottom hole temperature: 177 °F  
 Temperature gradient: 1.40 °F/100ft  
 Minimum section length: 368 ft

Cement top: 6,694 ft

#### Burst

Max anticipated surface pressure: 0 psi  
 Internal gradient: 0.478 psi/ft  
 Calculated BHP 3,823 psi

No backup mud specified.

#### Tension:

8 Round STC: 1.80 (J)  
 8 Round LTC: 1.80 (J)  
 Buttress: 1.60 (J)  
 Premium: 1.50 (J)  
 Body yield: 1.50 (B)

Non-directional string.

Tension is based on air weight.  
 Neutral point: 6,900 ft

Run Seq	Segment Length (ft)	Size (in)	Nominal Weight (lbs/ft)	Grade	End Finish	True Vert Depth (ft)	Measured Depth (ft)	Drift Diameter (in)	Internal Capacity (ft³)
1	8000	4.5	11.60	J-55	LT&C	8000	8000	3.875	185.4
Run Seq	Collapse Load (psi)	Collapse Strength (psi)	Collapse Design Factor	Burst Load (psi)	Burst Strength (psi)	Burst Design Factor	Tension Load (Kips)	Tension Strength (Kips)	Tension Design Factor
1	3823	4960	1.297	3823	5350	1.40	93	162	1.75 J

Prepared by: Clinton Dworshak  
 Utah Div. of Oil & Mining

Phone: 801-538-5280  
 FAX: 801-359-3940

Date: October 14, 2004  
 Salt Lake City, Utah

#### Remarks:

Collapse is based on a vertical depth of 8000 ft, a mud weight of 9.2 ppg. The casing is considered to be evacuated for collapse purposes. Collapse strength is based on the Westcott, Dunlop & Kemler method of biaxial correction for tension.

Burst strength is not adjusted for tension.

*Engineering responsibility for use of this design will be that of the purchaser.*

002

**From:** Ed Bonner  
**To:** Whitney, Diana  
**Date:** 11/15/2004 11:36:33 AM  
**Subject:** Well Clearance

The following wells have been given cultural resource clearance by the Trust Lands Cultural Resources Group:

✓ Robert L Bayless, Producer LLC  
Buttermilk State #1

Westport Oil & Gas Company  
NBU 1021-16M ✓

The Houston Exploration Company  
Bonanza 4-29 ✓

ConocoPhillips Company  
Utah 33-530

✓ Crescendo Energy, LLC  
State #2-3

Gasco Production Company  
Desert Spring State 41-36-9-18

If you have any questions regarding this matter please give me a call.

**CC:** Garrison, LaVonne; Hill, Brad; Hunt, Gil



State of Utah

Department of  
Natural Resources

ROBERT L. MORGAN  
*Executive Director*

Division of  
Oil, Gas & Mining

LOWELL P. BRAXTON  
*Division Director*

OLENE S. WALKER  
*Governor*

GAYLE F. McKEACHNIE  
*Lieutenant Governor*

December 2, 2004

Crescendo Energy, LLC  
P O Box 1814  
Midland, TX 79702

Re: State 2-3 Well, 2536' FNL, 1858' FWL, SE NW, Sec. 2, T. 16 South,  
R. 24 East, Grand County, Utah

Gentlemen:

Pursuant to the provisions and requirements of Utah Code Ann. § 40-6-1 *et seq.*, Utah Administrative Code R649-3-1 *et seq.*, and the attached Conditions of Approval, approval to drill the referenced well is granted.

This approval shall expire one year from the above date unless substantial and continuous operation is underway, or a request for extension is made prior to the expiration date. The API identification number assigned to this well is 43-019-31411.

Sincerely,

A handwritten signature in black ink, appearing to read "John R. Baza".

John R. Baza  
Associate Director

pab  
Enclosures

cc: Grand County Assessor  
SITLA

**Operator:** Crescendo Energy, LLC  
**Well Name & Number** State 2-3  
**API Number:** 43-019-31411  
**Lease:** ML-22208

**Location:** SE NW                      **Sec.** 2                      **T.** 16 South                      **R.** 24 East

### **Conditions of Approval**

1.    **General**

Compliance with the requirements of Utah Admin. R. 649-1 *et seq.*, the Oil and Gas Conservation General Rules, and the applicable terms and provisions of the approved Application for Permit to Drill.

2.    **Notification Requirements**

The operator is required to notify the Division of Oil, Gas and Mining of the following actions during drilling of this well:

- 24 hours prior to cementing or testing casing
- 24 hours prior to testing blowout prevention equipment
- 24 hours prior to spudding the well
- within 24 hours of any emergency changes made to the approved drilling program
- prior to commencing operations to plug and abandon the well

The following are Division of Oil, Gas and Mining contacts and their work telephone numbers (please leave a voice mail message if the person is not available to take the call):

- Dan Jarvis at (801) 538-5338
- Carol Daniels at (801) 538-5284 (spud)

3.    **Reporting Requirements**

All required reports, forms and submittals will be promptly filed with the Division, including but not limited to the Entity Action Form (Form 6), Report of Water Encountered During Drilling (Form 7), Weekly Progress Reports for drilling and completion operations, and Sundry Notices and Reports on Wells requesting approval of change of plans or other operational actions.

4.    Compliance with the State of Utah Antiquities Act forbids disturbance of archeological, historical, or paleontological remains. Should archeological, historical or paleontological remains be encountered during your operations, you are required to immediately suspend all operations and immediately inform the Trust Lands Administration and the Division of State History of the discovery of such remains.

5.    Compliance with the Conditions of Approval/Application for Permit to Drill outlined in the Statement of Basis. (Copy Attached)

6.    Surface casing shall be cemented to the surface.

Page 2  
API #43-019-31411  
December 2, 2004

7. In accordance with cause No. 149-1, no more than one well shall produce from the same sand interval or zone in each drilling unit (W 1/2 Sec. 2).

STATE OF UTAH  
DEPARTMENT OF NATURAL RESOURCES  
DIVISION OF OIL, GAS AND MINING

FORM 9

<b>SUNDRY NOTICES AND REPORTS ON WELLS</b>		5. LEASE DESIGNATION AND SERIAL NUMBER: <b>See attached</b>
Do not use this form for proposals to drill new wells, significantly deepen existing wells below current bottom-hole depth, reenter plugged wells, or to drill horizontal laterals. Use APPLICATION FOR PERMIT TO DRILL form for such proposals.		6. IF INDIAN, ALLOTTEE OR TRIBE NAME:
1. TYPE OF WELL OIL WELL <input type="checkbox"/> GAS WELL <input checked="" type="checkbox"/> OTHER _____		7. UNIT or CA AGREEMENT NAME: <b>San Arroyo Unit and other wells</b>
2. NAME OF OPERATOR: <b>Slate River Resources, LLC</b>		8. WELL NAME and NUMBER: <b>See attached</b>
3. ADDRESS OF OPERATOR: <b>418 Main Street, Ste. 18</b> CITY <b>Vernal</b> STATE <b>UT</b> ZIP <b>84078</b>		9. API NUMBER: <b>See attach</b>
PHONE NUMBER: <b>(435) 781-1870</b>		10. FIELD AND POOL, OR WILDCAT: <b>See attached</b>

4. LOCATION OF WELL  
FOOTAGES AT SURFACE: **See attached schedule of wells** COUNTY: **Grand**  
QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN: STATE: **UTAH**

11. CHECK APPROPRIATE BOXES TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA			
TYPE OF SUBMISSION	TYPE OF ACTION		
<input type="checkbox"/> NOTICE OF INTENT (Submit in Duplicate) Approximate date work will start: _____	<input type="checkbox"/> ACIDIZE <input type="checkbox"/> ALTER CASING <input type="checkbox"/> CASING REPAIR <input type="checkbox"/> CHANGE TO PREVIOUS PLANS <input type="checkbox"/> CHANGE TUBING <input type="checkbox"/> CHANGE WELL NAME <input type="checkbox"/> CHANGE WELL STATUS <input type="checkbox"/> COMMINGLE PRODUCING FORMATIONS <input type="checkbox"/> CONVERT WELL TYPE	<input type="checkbox"/> DEEPEN <input type="checkbox"/> FRACTURE TREAT <input type="checkbox"/> NEW CONSTRUCTION <input checked="" type="checkbox"/> OPERATOR CHANGE <input type="checkbox"/> PLUG AND ABANDON <input type="checkbox"/> PLUG BACK <input type="checkbox"/> PRODUCTION (START/RESUME) <input type="checkbox"/> RECLAMATION OF WELL SITE <input type="checkbox"/> RECOMPLETE - DIFFERENT FORMATION	<input type="checkbox"/> REPERFORATE CURRENT FORMATION <input type="checkbox"/> SIDETRACK TO REPAIR WELL <input type="checkbox"/> TEMPORARILY ABANDON <input type="checkbox"/> TUBING REPAIR <input type="checkbox"/> VENT OR FLARE <input type="checkbox"/> WATER DISPOSAL <input type="checkbox"/> WATER SHUT-OFF <input type="checkbox"/> OTHER: _____
<input type="checkbox"/> SUBSEQUENT REPORT (Submit Original Form Only) Date of work completion: _____			

12. DESCRIBE PROPOSED OR COMPLETED OPERATIONS. Clearly show all pertinent details including dates, depths, volumes, etc.

Crescendo Energy, LLC is a wholly owned subsidiary of Slate River Resources, LLC. All the wells, properties and leasehold interest of Crescendo Energy, LLC has been assigned to Slate River Resources, LLC. We request a change of Operator from Crescendo Energy, LLC to Slate River Resources, LLC on the wells listed on the attached schedule, including a change of Operator of the San Arroyo Unit Area effective November 1, 2005.

The Bond numbers for Slate River Resources, LLC are:

State of Utah DOGM Bond B001556 \$120,000

State of Utah Bond of Lessee B001760 \$ 15,000 being transferred from Crescendo to Slate River Resources, LLC

Federal Utah Statewide Bond UTB000187 \$ 25,000 being transferred from Crescendo to Slate River Resources, LLC

Crescendo Energy, LLC

N1365

*Carter G. Mathies*

Carter G. Mathies, President

NAME (PLEASE PRINT) <b>Gary D. Davis</b>	TITLE <b>President, Slate River Resources, LLC</b>
SIGNATURE <i>[Signature]</i>	DATE <b>11/10/2005</b>

(This space for State use only)

APPROVED **11/29/05**

*Earlene Russell*  
Division of Oil, Gas and Mining  
Earlene Russell, Engineering Technician

(See Instructions on Reverse Side)

RECEIVED

NOV 16 2005

DIV. OF OIL, GAS & MINING

## SLATE RIVER RESOURCES, LLC, OPERATOR

API Well Number	Company	Well Name	Well Type	Well Status	Field Name	County Name	Qtr/Qtr	Section	Township-Range	Acres	PNL/
43-019-30570-00-0	CRESCENDO ENERGY LLC	ARCO 27-1	Gas Well	Producing	SAN ARROYO	GRAND	NWSW	27	16S-25E	U-29645	1700
43-019-31162-00-0	CRESCENDO ENERGY LLC	ARCO STATE 36-7	Gas Well	Producing	EAST CANYON	GRAND	SWSE	36	15.5S-24E	ML-22208	852
43-019-31192-00-0	CRESCENDO ENERGY LLC	ARCO STATE 36-8	Gas Well	Producing	EAST CANYON	GRAND	SWSW	36	15.5S-24E	ML-22208	1285
43-019-30240-00-0	CRESCENDO ENERGY LLC	ARCO-STATE 2-1	Gas Well	Producing	EAST CANYON	GRAND	NESE	2	16S-24E	ML-22208	2420
43-019-30241-00-0	CRESCENDO ENERGY LLC	ARCO-STATE 2-2	Gas Well	Shut-In	EAST CANYON	GRAND	NWNW	2	16S-24E	ML-22208	1420
43-019-30047-00-0	CRESCENDO ENERGY LLC	BITTER CREEK 1	Gas Well	Producing	SAN ARROYO	GRAND	SWSE	2	16S-25E	ML-25151	1080
43-047-30765-00-0	CRESCENDO ENERGY LLC	BLACK HORSE CANYON FED 31-1	Gas Well	Producing	BLACK HORSE CYN	UINTAH	NWSW	31	15S-24E	U-14234	2030
43-019-15884-00-0	CRESCENDO ENERGY LLC	FEDERAL 174 1	Gas Well	Producing	SAN ARROYO	GRAND	SESW	11	16S-25E	U-126528	1940
43-019-31432-00-0	CRESCENDO ENERGY LLC	FEDERAL 27-2	Gas Well	Approved permit (APD); not yet spudd	SAN ARROYO	GRAND	SESE	27	16S-25E	U-29645	1110
43-019-31318-00-0	CRESCENDO ENERGY LLC	FEDERAL 47	Gas Well	Producing	SAN ARROYO	GRAND	NWNE	31	16S-26E	U-6023	990
43-019-31410-00-0	CRESCENDO ENERGY LLC	FEDERAL 6-1	Gas Well	Approved permit (APD); not yet spudd	SAN ARROYO	GRAND	SWNW	6	16S-25E	U-9831	1760
43-019-11089-00-0	CRESCENDO ENERGY LLC	FEDERAL GILBERT 1	Gas Well	Producing	SAN ARROYO	GRAND	SWNE	11	16S-25E	U-126528	1140
43-019-16532-00-0	CRESCENDO ENERGY LLC	SAN ARROYO 01	Gas Well	Shut-In	SAN ARROYO	GRAND	SENW	26	16S-25E	USL-71307	1320
43-019-15885-00-0	CRESCENDO ENERGY LLC	SAN ARROYO 02	Gas Well	Shut-In	SAN ARROYO	GRAND	SENW	22	16S-25E	U-370-A	125
43-019-15886-00-0	CRESCENDO ENERGY LLC	SAN ARROYO 03	Gas Well	Producing	SAN ARROYO	GRAND	SENW	23	16S-25E	U-369	60
43-019-15887-00-0	CRESCENDO ENERGY LLC	SAN ARROYO 04	Gas Well	Producing	SAN ARROYO	GRAND	SESW	30	16S-26E	U-6023	660
43-019-15888-00-0	CRESCENDO ENERGY LLC	SAN ARROYO 05	Gas Well	Shut-In	SAN ARROYO	GRAND	NWSE	25	16S-25E	U-369	820
43-019-15889-00-0	CRESCENDO ENERGY LLC	SAN ARROYO 06	Gas Well	Shut-In	SAN ARROYO	GRAND	SWNE	21	16S-25E	U-136529	1360
43-019-15890-00-0	CRESCENDO ENERGY LLC	SAN ARROYO 08	Gas Well	Producing	SAN ARROYO	GRAND	SWSW	16	16S-25E	ML-4113	2060
43-019-15891-00-0	CRESCENDO ENERGY LLC	SAN ARROYO 09	Gas Well	Producing	SAN ARROYO	GRAND	NWNE	27	16S-25E	U-370-A	1210
43-019-15892-00-0	CRESCENDO ENERGY LLC	SAN ARROYO 11	Gas Well	Producing	SAN ARROYO	GRAND	NESW	15	16S-25E	U-5059-C	2450
43-019-15893-00-0	CRESCENDO ENERGY LLC	SAN ARROYO 12	Gas Well	Producing	SAN ARROYO	GRAND	SWSW	23	16S-25E	USL-71307	1520
43-019-15894-00-0	CRESCENDO ENERGY LLC	SAN ARROYO 13	Gas Well	Producing	SAN ARROYO	GRAND	C-SW	22	16S-25E	U-370-A	660
43-019-15896-00-0	CRESCENDO ENERGY LLC	SAN ARROYO 16	Gas Well	Producing	SAN ARROYO	GRAND	SESW	26	16S-25E	U-369	1990
43-019-15897-00-0	CRESCENDO ENERGY LLC	SAN ARROYO 17	Gas Well	Producing	SAN ARROYO	GRAND	NENE	24	16S-25E	U-25243	660
43-019-15898-00-0	CRESCENDO ENERGY LLC	SAN ARROYO 18	Gas Well	Producing	SAN ARROYO	GRAND	NWNW	30	16S-26E	U-6023	1300
43-019-15899-00-0	CRESCENDO ENERGY LLC	SAN ARROYO 19	Gas Well	Producing	SAN ARROYO	GRAND	SWSE	14	16S-25E	U-5011-B	2600
43-019-15900-00-0	CRESCENDO ENERGY LLC	SAN ARROYO 20	Gas Well	Producing	SAN ARROYO	GRAND	SENE	26	16S-25E	USL-71307	1712
43-019-15901-00-0	CRESCENDO ENERGY LLC	SAN ARROYO 21	Gas Well	Producing	SAN ARROYO	GRAND	NWSE	25	16S-25E	U-369	395
43-019-15902-00-0	CRESCENDO ENERGY LLC	SAN ARROYO 22	Gas Well	Producing	SAN ARROYO	GRAND	NENE	15	16S-25E	U-5011-A	2194
43-019-15903-00-0	CRESCENDO ENERGY LLC	SAN ARROYO 24	Gas Well	Producing	SAN ARROYO	GRAND	SENW	19	16S-26E	U-6188	769
43-019-15904-00-0	CRESCENDO ENERGY LLC	SAN ARROYO 25	Gas Well	Producing	SAN ARROYO	GRAND	SWNE	21	16S-25E	U-136529	1111
43-019-15905-00-0	CRESCENDO ENERGY LLC	SAN ARROYO 26	Gas Well	Producing	SAN ARROYO	GRAND	SWSW	20	16S-26E	U-25297	78
43-019-15906-00-0	CRESCENDO ENERGY LLC	SAN ARROYO 27	Gas Well	Producing	SAN ARROYO	GRAND	NESW	29	16S-26E	U-6021	787
43-019-15907-00-0	CRESCENDO ENERGY LLC	SAN ARROYO 28	Gas Well	Producing	SAN ARROYO	GRAND	NWNE	29	16S-26E	U-5650	634
43-019-15908-00-0	CRESCENDO ENERGY LLC	SAN ARROYO 29	Gas Well	Producing	SAN ARROYO	GRAND	NENE	22	16S-25E	U-370-A	540
43-019-15909-00-0	CRESCENDO ENERGY LLC	SAN ARROYO 30	Gas Well	Producing	SAN ARROYO	GRAND	NWSW	21	16S-26E	U-5650	945
43-019-30527-00-0	CRESCENDO ENERGY LLC	SAN ARROYO 31	Gas Well	Shut-In	SAN ARROYO	GRAND	NWNW	22	16S-25E	U-370-A	739
43-019-30528-00-0	CRESCENDO ENERGY LLC	SAN ARROYO 32	Gas Well	Producing	SAN ARROYO	GRAND	SWSW	14	16S-25E	U-5011-B	1305
43-019-30608-00-0	CRESCENDO ENERGY LLC	SAN ARROYO 33	Gas Well	Producing	SAN ARROYO	GRAND	SWSW	25	16S-25E	U-369	1977
43-019-11090-00-0	CRESCENDO ENERGY LLC	SAN ARROYO 35	Gas Well	Producing	SAN ARROYO	GRAND	SESW	24	16S-25E	U-369	1875
43-019-31251-00-0	CRESCENDO ENERGY LLC	SAN ARROYO 36-A	Gas Well	Producing	SAN ARROYO	GRAND	SESE	19	16S-26E	U-6188	304
43-019-31252-00-0	CRESCENDO ENERGY LLC	SAN ARROYO 37	Gas Well	Producing	SAN ARROYO	GRAND	SWNE	20	16S-26E	U-5650	2029
43-019-31253-00-0	CRESCENDO ENERGY LLC	SAN ARROYO 38	Gas Well	Producing	SAN ARROYO	GRAND	SWNE	16	16S-25E	ML-4113	1393
43-019-31250-00-0	CRESCENDO ENERGY LLC	SAN ARROYO 40	Gas Well	Shut-In	SAN ARROYO	GRAND	NWNE	27	16S-25E	U-370-A	1482
43-019-31289-00-0	CRESCENDO ENERGY LLC	SAN ARROYO 41	Gas Well	Producing	SAN ARROYO	GRAND	NENE	36	16S-25E	Not CE Lease	1342
43-019-31290-00-0	CRESCENDO ENERGY LLC	SAN ARROYO 42	Gas Well	Producing	SAN ARROYO	GRAND	NESE	30	16S-26E	U-6023	1300
43-019-31291-00-0	CRESCENDO ENERGY LLC	SAN ARROYO 43	Gas Well	Producing	SAN ARROYO	GRAND	NESE	29	16S-26E	U-6021	600
43-019-31301-00-0	CRESCENDO ENERGY LLC	SAN ARROYO 44	Gas Well	Producing	SAN ARROYO	GRAND	SENE	30	16S-26E	U-6023	
43-019-31299-00-0	CRESCENDO ENERGY LLC	SAN ARROYO 45	Gas Well	Producing	SAN ARROYO	GRAND	NWSE	20	16S-26E	U-5650	0

UTAH SCHEDULE OF WELLS  
SLATE RIVER RESOURCES, LLC, OPERATOR

[illegible]

STATE OF UTAH  
DEPARTMENT OF NATURAL RESOURCES  
DIVISION OF OIL, GAS AND MINING

**Request to Transfer Application or Permit to Drill**

(This form should accompany a Sundry Notice, Form 9, requesting APD transfer)

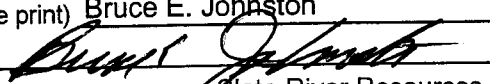
Well name:	State 2-3
API number:	4301931411
Location:	Qtr-Qtr: SENW Section: 2 Township: 16S Range: 24E
Company that filed original application:	Crescendo Energy, LLC
Date original permit was issued:	12/02/2004
Company that permit was issued to:	Crescendo Energy, LLC

Check one	Desired Action:
<input type="checkbox"/>	Transfer pending (unapproved) Application for Permit to Drill to new operator
<input type="checkbox"/>	The undersigned as owner with legal rights to drill on the property, hereby verifies that the information as submitted in the pending Application for Permit to Drill, remains valid and does not require revision. The new owner of the application accepts and agrees to the information and procedures as stated in the application.
<input checked="" type="checkbox"/>	Transfer approved Application for Permit to Drill to new operator
<input type="checkbox"/>	The undersigned as owner with legal rights to drill on the property as permitted, hereby verifies that the information as submitted in the previously approved application to drill, remains valid and does not require revision.

Following is a checklist of some items related to the application, which should be verified.	Yes	No
If located on private land, has the ownership changed?		
<input type="checkbox"/> If so, has the surface agreement been updated?		
Have any wells been drilled in the vicinity of the proposed well which would affect the spacing or siting requirements for this location?		✓
Have there been any unit or other agreements put in place that could affect the permitting or operation of this proposed well?		✓
Have there been any changes to the access route including ownership or right-of-way, which could affect the proposed location?		✓
Has the approved source of water for drilling changed?		✓
Have there been any physical changes to the surface location or access route which will require a change in plans from what was discussed at the onsite evaluation?		✓
Is bonding still in place, which covers this proposed well? Bond No. <u>B001556</u>	✓	

Any desired or necessary changes to either a pending or approved Application for Permit to Drill that is being transferred should be filed on a Sundry Notice, Form 9, or amended Application for Permit to Drill, Form 3, as appropriate, with necessary supporting information as required.

**RECEIVED**  
**NOV 25 2005**

Name (please print) Bruce E. Johnston Title Vice President Land **DIV. OF OIL, GAS & MINING**  
Signature  Date 11/23/2005  
Representing (company name) Slate River Resources, LLC

The person signing this form must have legal authority to represent the company or individual(s) to be listed as the new operator on the Application for Permit to Drill.

## OPERATOR CHANGE WORKSHEET

### Change of Operator (Well Sold)

## Operator Name Change

**Designation of Agent/Operator**

## X Merger

## ROUTING

1. DJJ

## 2. CDW

The operator of the well(s) listed below has changed, effective:

**11/1/2005**

**FROM:** (Old Operator):

**NI365-Crescendo Energy, LLC**  
1600 Broadway, Suite 900  
Denver, CO 80202

**Phone: 1-(303) 592-4448**

**TO: ( New Operator):**

**N2725-Slate River Resources, LLC**  
**418 Main St, Suite 18**  
**Vernal, UT 84078**

**Phone: 1-(435) 781-1870****CA No.**

Unit:

**WELL(S)**[illegible]

## OPERATOR CHANGES DOCUMENTATION

**Enter date after each listed item is completed**

- |   |                   |
|---|-------------------|
| 1. (R649-8-10) Sundry or legal documentation was received from the <b>FORMER</b> operator on: | <u>11/16/2005</u> |
| 2. (R649-8-10) Sundry or legal documentation was received from the <b>NEW</b> operator on:    | <u>11/16/2005</u> |

3. The new company was checked on the Department of Commerce, Division of Corporations Database on: 11/23/2005
4. Is the new operator registered in the State of Utah: YES Business Number: 5830411-0161
5. If NO, the operator was contacted contacted on:

- |   |                                |                    |
|---|--------------------------------|--------------------|
| 6a. (R649-9-2)Waste Management Plan has been received on:     | <u>                    </u>    | requested 11/23/05 |
| 6b. Inspections of LA PA state/fee well sites complete on:    | <u>          n/a          </u> |                    |
| 6c. Reports current for Production/Disposition & Sundries on: |                                | requested 11/23/05 |

7. **Federal and Indian Lease Wells:** The BLM and or the BIA has approved the merger, name change, or operator change for all wells listed on Federal or Indian leases on: \_\_\_\_\_

8. **Federal and Indian Units:**

The BLM or BIA has approved the successor of unit operator for wells listed on: n/a

9. **Federal and Indian Communization Agreements ("CA"):**

The BLM or BIA has approved the operator for all wells listed within a CA on: n/a

10. **Underground Injection Control ("UIC")** The Division has approved UIC Form 5, Transfer of Authority to Inject, for the enhanced/secondary recovery unit/project for the water disposal well(s) listed on: n/a

**DATA ENTRY:**

1. Changes entered in the Oil and Gas Database on: 11/29/2005
2. Changes have been entered on the Monthly Operator Change Spread Sheet on: 11/29/2005
3. Bond information entered in RBDMS on: 11/29/2005
4. Fee/State wells attached to bond in RBDMS on: 11/29/2005
5. Injection Projects to new operator in RBDMS on: n/a
6. Receipt of Acceptance of Drilling Procedures for APD/New on: 11/29/2005

**FEDERAL WELL(S) BOND VERIFICATION:**

1. Federal well(s) covered by Bond Number: UTB000187

**INDIAN WELL(S) BOND VERIFICATION:**

1. Indian well(s) covered by Bond Number: n/a

**FEE & STATE WELL(S) BOND VERIFICATION:**

1. (R649-3-1) The NEW operator of any fee well(s) listed covered by Bond Number B001556
2. The FORMER operator has requested a release of liability from their bond on: 11/25/2005  
The Division sent response by letter on: n/a

**LEASE INTEREST OWNER NOTIFICATION:**

3. (R649-2-10) The FORMER operator of the fee wells has been contacted and informed by a letter from the Division of their responsibility to notify all interest owners of this change on: n/a

**COMMENTS:**



**State of Utah**  
**Department of**  
**Natural Resources**

MICHAEL R. STYLER  
*Executive Director*

**Division of**  
**Oil, Gas & Mining**

JOHN R. BAZA  
*Division Director*

JON M. HUNTSMAN, JR.  
*Governor*

GARY R. HERBERT  
*Lieutenant Governor*

January 31, 2006

Ginger Stringham  
Slate River Resources, LLC  
418 Main St, Suite 18  
Vernal, Utah 84078

Re: APD **Rescinded** -State 2-3 Sec. 2, T. 16S R. 24E  
Grand County, Utah API No. 43-019-31411

Dear Ms. Stringham:

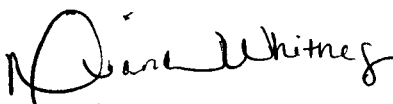
The Application for Permit to Drill (APD) for the subject well was approved by the Division of Oil, Gas and Mining (Division) on December 2, 2004. On January 30, 2006 you requested that the division rescind the state approved APD.

No drilling activity at this location has been reported to the division. Therefore, approval to drill the well is hereby rescinded, effective January 30, 2006.

A new APD must be filed with this office for approval prior to the commencement of any future work on the subject location.

If any previously unreported operations have been performed on this well location, it is imperative that you notify the Division immediately.

Sincerely,

  
Diana Whitney  
Engineering Technician

cc: Well File  
SITLA, Ed Bonner